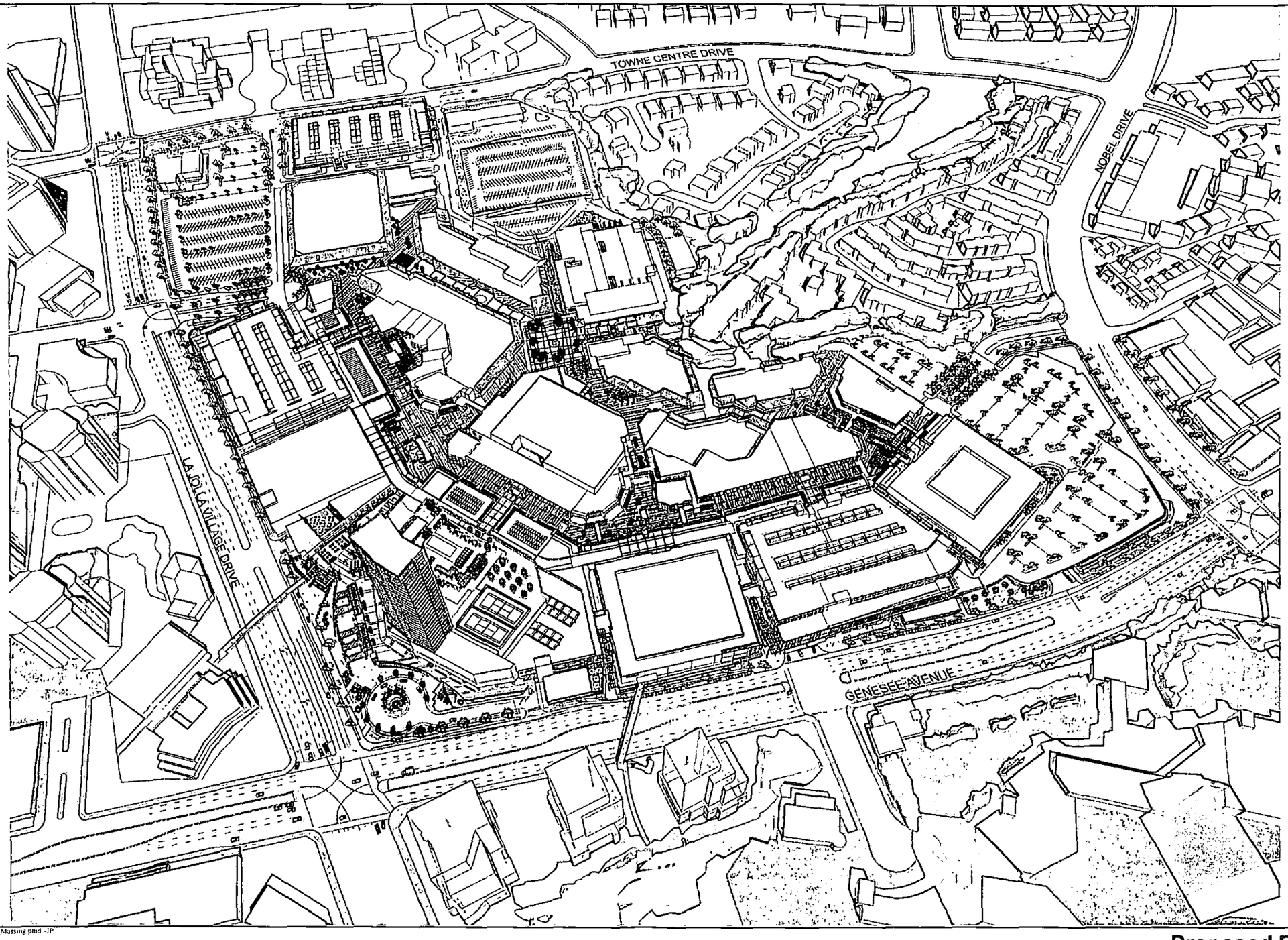

Source: Westfield 2007

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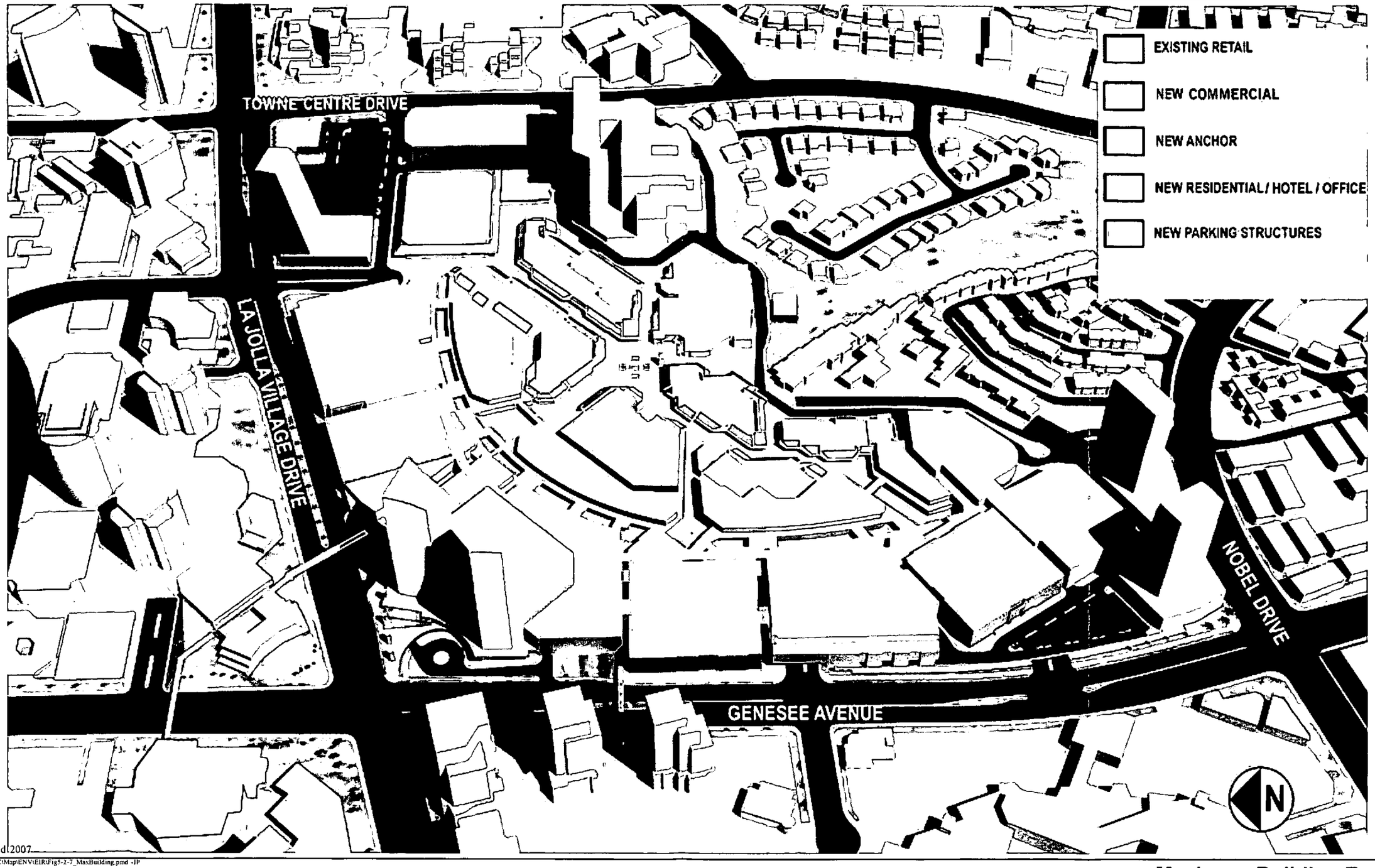
Proposed Project Massing

UTC REVITALIZATION PROJECT

Figure 5.2-6



Source: Westfield 2007

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Maximum Building Envelope

UTC REVITALIZATION PROJECT

Figure 5.2-7

Because of their potential locations adjacent to lower-stature residential structures to the south, a discussion of the potential ~~aesthetic~~ bulk and scale impacts from the residential/hotel/office structures in the Towne Centre Gardens and Nobel Heights districts under the All Uses land use scenario is provided below. Towers in the University Central and La Jolla Terrace districts would be situated adjacent to other non-residential mid- to high-rise buildings in the community and would a lesser potential for bulk and scale incompatibilities with surrounding development.

The potential residential structure in Towne Centre Gardens district would include a multi-story residential building atop a new three-level parking structure south of the Sears department store, resulting in an up to 325-foot tall structure. Because of its height, the southeastern residential structure would have the potential to create a ~~visual~~ bulk and scale inconsistency with the existing two-story single-family residential development off site to the south. However, the 20-foot vertical difference and 70-foot horizontal distance (including the minimum 15-foot setback) between the adjacent property and proposed residential site would provide visual separation (see Figure 5.2-68, *Conceptual Building Massing Using Angled Building Envelope Plane*). While the adjacent property is commercially designated, low-density single-family residences currently occupy the site. To address this issue, the project applicant has proposed Master PDP Design Guidelines for residential structures (Westfield 2007). As described in those guidelines, the project design would utilize an angled building envelope plane concept to minimize bulk and scale impacts to the adjacent property and allow for solar access within the proposed residential development. The angled building envelope concept described in the Master PDP Design Guidelines is based on §131.0444(b) of the San Diego Municipal Code (SDMC) and is shown in Figure 5.2-68~~, *Conceptual Building Massing Using Angled Building Envelope Plane*~~. As shown in the figure, the mid-rise and high-rise portions of the building above the first 24 feet of visible height, as seen from the adjacent development, would scale back toward the north at an angle of 45 degrees. To maximize solar access, the same standard would be applied on the western side of the structure, thereby massing the structure back toward the east at a 45-degree angle.

In addition to the angled building massing, the proposed design concept for the residential structure and parking structure features articulation of the building mass through offsets and terraces. New landscaping would be added within the setback between the proposed structure and the southern property line to screen and soften the appearance of the new residential/garage structure. In so doing, the potential visual impacts to the adjacent single-family residences would be avoided.

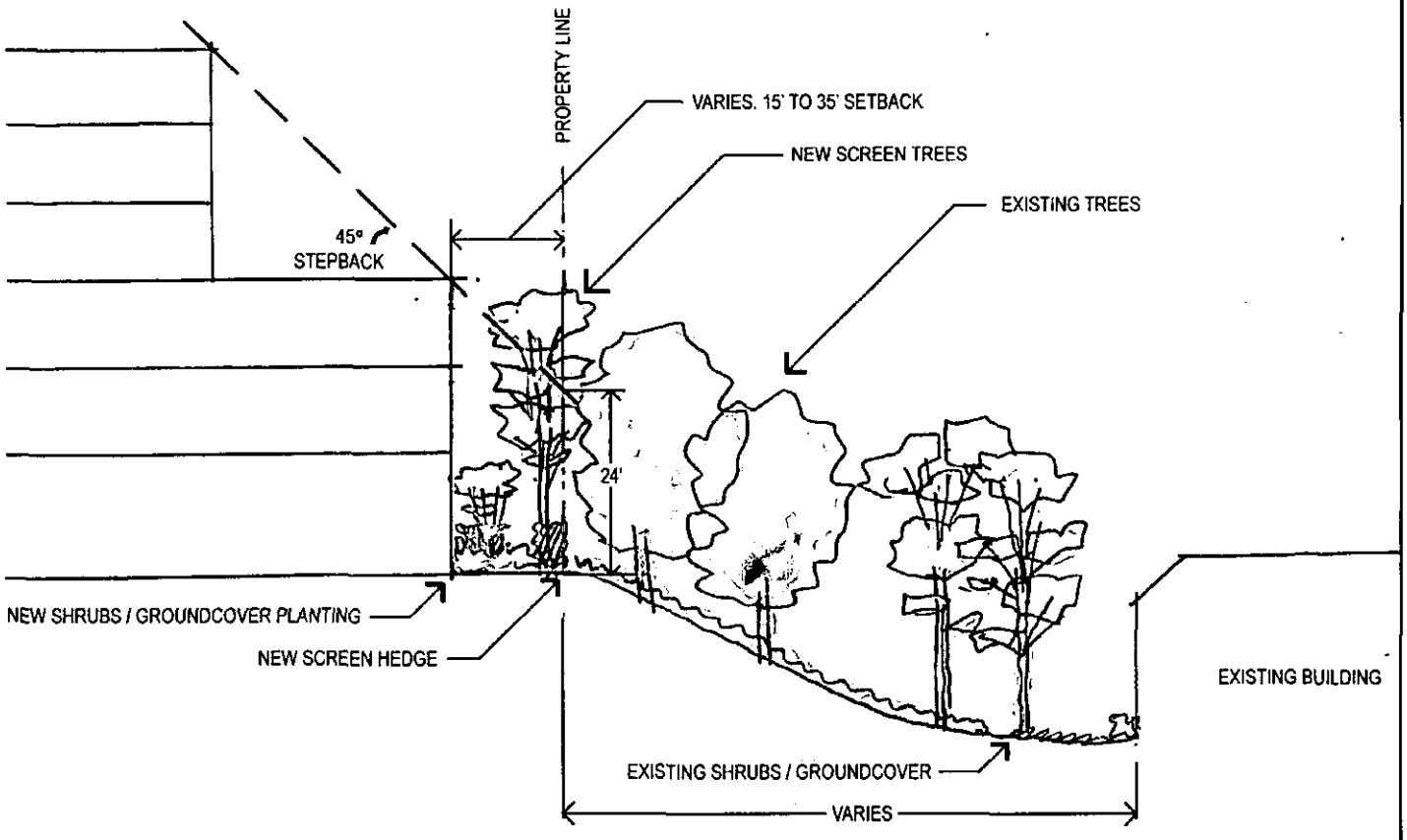
As described in the Master PDP Design Guidelines, the residential/hotel structures would also feature clean and simple rectilinear shapes, complimented with arcades, porches, balconies, awnings/canopies and/or feature towers, and it would use materials, such as stone, wood, stucco and concrete for construction and a color palette dominated by lightly colored walls and surfaces with color to be used for detail and to accent key architectural building forms. The proposed project would utilize design concepts, including an angled building envelope plane, landscaping, and architectural design elements

that would create a visually interesting façade and help to soften aesthetic affects on the surrounding area consistent with the urban design goals of the *University Community Plan* and the Master PDP Design Guidelines (see Section 5.1, *Land Use*, of this report).

If additional residential/hotel/office structures are constructed under the various land use scenarios defined by the Master PDP in the northwestern, northeastern and southwestern portions of the site, these proposed structures would also exceed the height limit for the regional commercial zone similar to proposed project. This affect would not be uncharacteristic for the urban node of the University Community planning area, which currently contains a number of multi-story residential structures, hotel and office towers of varying bulk and scale in the project area. In addition, these other locations generally interface with office towers and hotels across the street from UTC and are separated from existing development by large public roads and landscaping. The exception would be any tower(s) in the southwestern portion of the site (i.e., Nobel Heights district) where lower stature residential townhouses occur across the street. Within that district, implementation of the above-described design guidelines would prevent any bulk and scale issues.

Despite the implementation of design guidelines in the Master PDP, four districts have the potential for high-rise residential/hotel/office structures and would be the tallest structures on site and in the surrounding community. As noted under Existing Conditions, many of the buildings along La Jolla Village Drive are mid- to high-rise structures, which are intermittently interrupted by low- to mid-rise multi-family and commercial (i.e., restaurant) uses. Multi-level parking garages exist along street yards throughout the community. In addition, tall residential structures exist in the UTC vicinity within the Costa Verde property and along Nobel Drive and La Jolla Village Drive and others are ~~awaiting approval in the project area (i.e., Monte Verde) and are~~ not yet built (i.e., Monte Verde). While the heights of the buildings would depart from that of the surrounding buildings, increasing the building heights reduces the footprint allowing for a more slender profile. The slender profile towers allow for greater building separation, thus increasing the amount of land area that can be devoted to landscaping and open space, making the street-level character more visually desirable. Nonetheless, ~~B~~because the proposed structures could exceed the allowable height or bulk regulations of the underlying zone and the height and bulk established by existing patterns of development in the community by a substantial margin, aesthetics/visual quality impacts to the surrounding community ~~neighborhood character~~ would be considered significant. Since the only mitigation for scale and bulk impacts such as these would require adoption of alternative design guidelines for the Master PDP, the impact would be considered unmitigable. An alternative addressing this bulk and scale impact is discussed in Section 7.0, *Alternatives*, of this report.

~~With regard to architectural building style, the proposed project design would integrate natural materials, such as stone and wood, with man-made materials, such as stucco and concrete, and would use a neutral palette of paint colors when finishing the structures. Although the proposed style of the expanded retail portion of the center would not be similar to the reflective glass, stucco and stone of~~



Section at Towne Centre Gardens and Vista La Jolla

Source: Master Planned Development Permit for Westfield UTC

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Conceptual Building Massing Using Angled Building Envelope Plane

UTC REVITALIZATION PROJECT

Figure 5.2-8

~~the nearby office and commercial developments nearby, the project would introduce high quality building materials that would be complimentary and inviting on a pedestrian scale. Furthermore, it would not contrast with the architectural styles in the community because there is no common theme established in the community.~~

Significance of Impacts

The proposed Master PDP would conflict with the City of San Diego's significance thresholds for structure height bulk and scale~~, materials and style~~ since it proposes structures that could exceed the development regulations in the proposed zoning (CR-1-1) and the existing pattern of development in the surrounding community. The requested deviation in the height limit would result in a significant and unmitigable aesthetic impact~~, to neighborhood character~~. Where the proposed project would place high-rise residential housing or hotel near existing single-family homes and townhouses adjacent to and south of the UTC property, the potential exists ~~for a conflict with~~ visual incompatibility. Such potential would be addressed and incompatibility minimized through compliance with the architectural massing, architectural characteristics and landscaping outlined in the UTC design guidelines. In so doing, potential impacts relating to visual compatibility caused by the excessive bulk and scale would be less than significant.

Mitigation Measures, Monitoring and Reporting Program

No mitigation is available to reduce significant aesthetics impacts related to bulk and scale and *unmitigable impacts* would occur.

Issue 2: How would the proposal result in substantial alteration to the existing visual character of the area?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater visual character impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

The proposed project would allow for development that is generally consistent with the visual quality and character in the Central Subarea of the community, since it would involve the development of urban uses, such as commercial and higher-density residences, on an existing shopping center site. The proposed uses are similar to those that exist on site and in the surrounding area and are permitted within both the existing and regional commercial (CR-1-1) zone. As discussed above, the project would exceed the height regulations of the CR-1-1 zone and the heights of other structures in the community that would result in significant and unmitigable aesthetic impacts related to bulk and

scale. ~~to neighborhood character. As discussed above under Issue 1, the architectural style of the expanded center would be different than, but compatible with, nearby office and commercial development, which features an eclectic mix of glass, stone and stucco building materials in a variety of architectural styles.~~ With regard to architectural building style, the proposed project design would integrate natural materials, such as stone and wood, with man-made materials, such as stucco and concrete, and would use a neutral palette of paint colors when finishing the structures. Although the proposed style of the expanded retail portion of the center would not be similar to the reflective glass, stucco and stone of the nearby office and commercial developments nearby, the project would introduce high quality building materials that would be complimentary and inviting on a pedestrian scale. Furthermore, it would not contrast with the architectural styles in the community because there is no common theme established in the community. Where the project abuts or is near dissimilar (residential) uses, such as the ~~La Jolla~~ Vista La Jolla neighborhood and town homes, to the south, the project's angled building envelope (see Figure 5.2-~~6~~8) and articulated building façades and proposed landscape features contained in the Master PDP design guidelines would minimize the potential for visual character impacts by providing structural transition and landscape screening between the lower and higher density residential uses.

Development of the proposed project would involve a reduction in the overall width, and in some cases the removal, of the landscaped berms fronting La Jolla Village Drive and Genesee Avenue. The landscape berms along these arterial roadways are identified as a "unifying theme" in the community (refer to Table 5.1-1 under Land Use for the specific policy language). However, policy language in the *University Community Plan* also discourages the continued use of the "superblock" approach to development wherein proposed projects place landscaping along the street and orient buildings away from the street toward the center of the project. The design outlined in the Master PDP proposes replacement of the existing landscaping with drought tolerant plants and grasses. When University Central is constructed, the existing landscaped slope near the intersection of La Jolla Village Drive and Genesee Avenue would be eliminated and replaced with decorative pavement and planters containing mature palm trees and other unique landscape elements. Although the proposed project would substantially change the character of the streetscape by reducing or eliminating the landscape berms along two community-unifying roadways, it would replace portions of the landscaping and visually open up the center to La Jolla Village Drive and Genesee Avenue, which is consistent with the community character goals in the community plan.

The visual impact of others replacing the off-site sewer line that the proposed project would partially fund (see MM 5.7-1) was addressed in the Monte Verde Final EIR (SCH No. 2003091106). The previous analysis was certified by the City Council on September 17, 2007 and is incorporated by reference into this EIR, in accordance with Section 15150 of the State CEQA Guidelines. Based on that analysis, it was determined that significant and unmitigable impacts to neighborhood character would arise because above-grade sewer line improvements would require the construction of either a manufactured fill or retaining walls which would introduce a feature which would be incongruent with

the natural character of the canyon. The neighborhood character impacts resulting from the sewer line replacement are outlined in the Statement of Overriding Considerations adopted as part of the Monte Verde project approvals. Should the Monte Verde applicant determine that the replacement sewer line could be installed below ground, no adverse impact to neighborhood character would arise.

Significance of Impacts

The proposed project does not conflict with the City of San Diego's significance thresholds for visual character. It would not substantially change the visual character of the site since it is already developed with a regional shopping center. The project would have the potential to substantially change the character of the streetscape along the two community-unifying roadways in the Central Subarea of the University Community; however, these changes would be consistent with the community character goals of the Community Plan. Therefore, no significant visual impact is identified.

Mitigation Measures, Monitoring and Reporting Program

No mitigation is required, since no significant visual quality impacts related to visual character are identified.

Issue 3: Would the proposal obstruct any vista or scenic view from a public viewing area?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater scenic view impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

There are no public view corridors identified for this area in the *University Community Plan*. The retail structures, architectural appurtenances and residential/hotel/office structures proposed on site would not block public views from parks or views of natural features, such as Rose Canyon or the Pacific Ocean. The structure would be visible at greater distances than the lower-stature portions of the project adjacent to the existing shopping center. The proposed structures would not obstruct any public viewing areas outside the Central Subarea or create an unusual development feature in the skyline of the community since many of the existing and proposed buildings in the project area are mid- to high-rise structures. In addition, the proposed project would redevelop an existing shopping center site in an already urbanized area and would not open up a new area for development that would ultimately cause view blockage.

Significance of Impacts

The proposed project does not conflict with the City of San Diego's significance thresholds for vistas or scenic views. No vistas or scenic views exist in the project area; therefore, no significant visual impact is identified.

Mitigation Measures, Monitoring and Reporting Program

No mitigation is required, since no significant visual quality impacts are identified.

Issue 4: Would the proposal result in substantial light and glare?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater light and glare impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

Implementation of the proposed project would eliminate or replace some of the existing lighting standards within the existing parking areas and building façades on the site and introduce limited lighting in the on-site open space as part of the proposed park improvements. Lighting standards would be replaced with fixtures required in the SDMC for the CR-1-1 regional commercial zone and would be in compliance with Section 142.0740 of the SDMC, Outdoor Lighting Requirements. Lighting along the streetscape would increase slightly as buildings and parking structures are placed closer to the street than is currently the case.

The proposed project design would integrate non-reflective materials, such as stone and wood, with man-made materials such as whitewashed stucco walls and tile. The multi-story buildings would feature solid masses with punched openings combined with modern glass curtains and metal panels similar to other multi-story structures in the area. Excessive amounts of glass materials are not proposed on the lower or base elevations of the structures that would front the public rights-of-way or nearby private residences. The natural and man-made building materials would minimize the reflective properties of the new development. New light sources from retail operations and Torrey Trail improvements would occur, however such lighting would not present a significant source of light or overspill because it would be directed toward its intended uses, ~~and~~ it would comply with requirements of the SDMC and the design guidelines and, in some cases such as the Torrey Trail improvements, would take advantage of existing mature landscaping to screen nearby residences.

The multi-family residential structure that would be developed over a new parking structure south of the Sears department store and the residential or hotel tower(s) or office structure in southwest corner

of the site would increase the potential for light overspill into the adjacent residential neighborhoods to the south. While the proposed residential would be built higher than the existing lighting standards on site that are currently illuminating the roof-top deck of the existing parking structure and surface parking lot, the new structures would incorporate interior oriented light fixtures. Both the southeastern garage and associated residential units would primarily use lighting that focuses toward the project, in accordance with the SDMC. Similarly, the potential residential/hotel/office structures in the southwestern portion of the site would be north of a residential development on the south side of Nobel Drive. These structures also would use lighting that focuses toward the project. New perimeter and/or security lighting would be placed near the base of the structure and oriented towards the proposed structure (away from the adjacent residential homes). Decorative lighting, if utilized, would serve to illuminate architectural patterns such as columns or cornices, and would be shielded to prevent overspill onto neighboring uses. In addition, the design guidelines indicated that landscape screening would be installed along the southern façade of the project site to further lessen potential overspill into adjacent residential development.

Significance of Impacts

The proposed project does not conflict with the City of San Diego's significance thresholds for light and glare. The proposed project would be compatible with and complimentary to surrounding developments in the Central Subarea of the University Community. Project design elements contained in the Master PDP Design Guidelines would minimize overspill onto neighboring properties and lighting impacts would be less than significant.

Mitigation Measures, Monitoring and Reporting Program

No mitigation is required, since no significant lighting impacts are identified.

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5.3 TRANSPORTATION/CIRCULATION

This section presents the results of an assessment of potential transportation and circulation impacts associated with the University Towne Center (UTC) Revitalization project. The analysis within this section is based upon a Traffic Impact Study (TIS) prepared by Linscott Law & Greenspan (LLG) (2007) and a parking assessment prepared by Fehr & Peers/Kaku Associates (2007, as updated in 2008). Both technical reports are summarized herein and contained in their entirety in Appendix B to this report.

5.3.1 Existing Conditions

Regional and Local Access

Regional access to the UTC project area is available from I-5 to the west via La Jolla Village Drive or Genesee Avenue; I-805 to the east via Nobel Drive, La Jolla Village Drive or Governor Drive; Miramar Road to the east via La Jolla Village Drive; and SR 52 to the south via Genesee Avenue or Regents Road. Local access to the project area is proposed via La Jolla Village Drive to the north, Nobel Drive to the south, Towne Centre Drive to the east, and Genesee Avenue to the west.

Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 16 of the *2000 Highway Capacity Manual* (HCM), with the assistance of the *Synchro* (version 5) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. Signalized intersection calculation worksheets and a more detailed explanation of the methodology are contained in Appendix B.

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and LOS was determined based upon the procedures found in Chapter 17 of the HCM, with the assistance of the *Synchro* (version 5) computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are contained in Appendix B.

Street segment analysis is based upon the comparison of average daily traffic (ADT) to the City of San Diego's *Roadway Classification, LOS, and ADT Table*, which provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. This table is contained in Appendix B.

The analysis of freeway segment LOS is based on a procedure developed by Caltrans District 11, which is based on methods described in the HCM. The procedure involves comparing the peak hour volume of the mainline segment to the theoretical capacity of the roadway (i.e., the volume-to-capacity ratio [V/C]). The resulting V/C is then compared to accepted ranges of V/C values corresponding to the various LOS for each facility classification, as shown in Table 5.3-1, *Caltrans District 11 Freeway Segment Level of Service Definitions*. The corresponding LOS represents an approximation of existing or anticipated future freeway operating conditions in the peak direction of travel during the peak hour.

Table 5.3–1
CALTRANS DISTRICT 11
FREEWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

LOS	V/C	Congestion/Delay	Traffic Description
USED FOR FREEWAYS, EXPRESSWAYS AND CONVENTIONAL HIGHWAYS			
A	<0.41	None	Free flow
B	0.42-0.62	None	Free to stable flow, light to moderate volumes.
C	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
USED FOR FREEWAYS AND EXPRESSWAYS			
F(0)	1.01-1.25	Considerable 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
F(1)	1.26-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues.
F(2)	1.36-1.45	Very Severe 2-3 hour delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods.
F(3)	>1.46	Extremely Severe 3+ hours of delay	Gridlock

Source: LLG 2007

There are two methods currently accepted by the City to calculate freeway ramp delays and queues, a fixed rate approach and a uniform 15-minute maximum delay approach. The fixed rate approach is based solely on the specific time intervals at which the ramp meter is programmed to release traffic. The uniform 15-minute maximum delay approach is based on the assumption that any demand exceeding 15-minutes would cause drivers to seek an alternative route or drivers would choose to use the ramp during a less busy time period. This approach, then, considers the ramp demand to spread out spatially and temporally if the calculated meter delay is greater than 15 minutes. Since all

metered ramps within the study area currently operate with measurable delay and project trips could not be reassigned to alternate routes, the uniform 15-minute maximum delay approach was not applicable to the proposed project.

The Congestion Management Program (CMP), which was adopted by SANDAG on November 22, 1991, is intended to link land use, transportation and air quality through level of service performance. The CMP requires an Enhanced CEQA Review for projects that are expected to generate more than 2,400 ADT or more than 200 peak hour trips. As the project trip generation exceeds the CMP thresholds, a CMP analysis is triggered. The *SANDAG 2004 Congestion Management Program Update, July 2005* report contains a list of "CMP Arterials" that are to be analyzed if the project exceeds the above mentioned trip generation thresholds. La Jolla Village Drive and Miramar Road arterial are listed in the report and are contained within the project study area. The *City of San Diego Traffic Impact Study Manual* contains criteria establishing that a project impact is considered significant if the travel speed along an arterial segment operating at LOS E or lower decreases by more than one mile per hour (mph) with addition of the proposed project.

Project Study Area

The study area for the UTC project was developed under direction of City staff in conjunction with the *City of San Diego Traffic Impact Study Manual* guidelines. The procedures are generally consistent with the CMP. The study area was identified through a collaborative process between City staff and LLG. Factors taken into consideration when defining the study area included the amount of traffic generated by the project and the number of peak hour trips attributable to the project. Project traffic information was entered into the regional traffic model maintained by SANDAG, and the study area was defined. The project study area is defined by 55 intersections, 55 street segments, 10 freeway segments, and 10 freeway ramp meters.

Existing Street Segment Operations

Roadway Network

Genesee Avenue — Genesee Avenue is generally a north-south four-lane roadway running from west of I-5 to south of SR 52 through the study area. The roadway is classified as a six-lane Primary Arterial from its intersection with I-5 on the north to Regents Road, then changing classification to a six-lane Major Street from Regents Road to Nobel Drive. South of Nobel Drive, it is classified as a six-lane Major, but only built to four lanes. Due to community concern, City Council is reviewing the option of not widening Genesee Avenue and keeping its four-lane cross-section. No official decision has yet been made and this option is currently under review. Genesee Avenue is under local jurisdiction throughout the study area with the exception of the I-5 and SR 52 Interchange, which is operated by the California Department of Transportation (Caltrans). Traffic is controlled by signals at all of the

study intersections located along Genesee Avenue. The roadway provides additional turn lanes at these intersections. The posted speed limit ranges from 40 to 50 mph. Land uses along Genesee Avenue through the study area are primarily office and medical on the north and residential and commercial on the south.

Eastgate Mall — Eastgate Mall is an east-west roadway, located entirely within the study area, extending from Regents Road on the west to Miramar Road on the east. The roadway is classified as a four-lane Collector from Regents Road to Genesee Avenue, changing to a four-lane Major Street from Genesee Avenue to Towne Centre Drive, and changing back to a four-lane Collector from Towne Centre Drive to Miramar Road. Eastgate Mall is not currently built to its classification; it is built as a two-lane facility from Regents Road to Genesee Avenue, changing to a four-lane facility from Genesee Avenue to I-805, and then to a two-lane facility from I-805 to Miramar Road. Eastgate Mall is under local jurisdiction. Traffic is controlled by signals at all of the study intersections located along Eastgate Mall. The roadway provides additional turn lanes at these intersections. The posted speed limit ranges from 25 to 40 mph. Land uses along Eastgate Mall are a mix of residential, recreational and office on the west (in the vicinity of Genesee Avenue) and more concentrated office and commercial towards the east.

La Jolla Village Drive/Miramar Road — La Jolla Village Drive/Miramar Road is a six lane east-west roadway, with some sections providing seven lanes of travel. It is classified as a six-lane Primary Arterial, except between Towne Centre Drive and I-805, where it is an eight-lane Prime Arterial. The roadway begins as La Jolla Village Drive west of I-805, at which point it becomes Miramar Road. La Jolla Village Drive/Miramar Road is under local jurisdiction throughout the study area, with the exception of the I-5 and I-805 interchanges, which are operated by Caltrans. Traffic is controlled by signals, and additional turn lanes are provided at all of the study intersections along the roadway. The posted speed limit ranges from 45 to 50 mph. Land uses in the vicinity of the roadway are a mix of office, commercial and residential.

Towne Centre Drive — Towne Centre Drive is a north-south four-lane roadway. The roadway is under local jurisdiction and is classified as a four-lane Major north of, and a four-lane Collector south of, Golden Haven Drive. The segment between Executive Drive and La Jolla Village Drive, though classified as a four-lane Major, is built as a four-lane Collector. Traffic is controlled by signals at all of the study intersections along the roadway. Towne Centre Drive provides additional turn lanes at these intersections. The posted speed limit is 40 mph. Land uses along Towne Centre Drive through the study area are primarily office with some commercial and residential.

Nobel Drive — Nobel Drive is an east-west roadway. It is classified as a six-lane Major between I-5 and Genesee Avenue, a six-lane Prime Arterial between Genesee Avenue and I-805, and as a four-lane Major east of I-805. Nobel Drive is built to its classification, except for segments between Lebon Drive and Regents Road, and between Genesee Avenue and Towne Centre Drive, where it is currently constructed as four-lanes only. Half diamond interchanges are provided at both I-5 and I-805. All of

the study intersections are signalized. The speed limit ranges from 35 to 45 mph. Land uses are primarily residential. Curbside parking is generally prohibited.

Judicial Drive — Judicial Drive is classified as a four-lane Major between Eastgate Mall and Nobel Drive. It is currently built to its classification between Eastgate Mall and Executive Drive and between Golden Haven Drive and Nobel Drive. The remaining portions are in various stages of planning, design and construction. All of the study intersections are, or will be, signalized.

Executive Drive — Executive Drive is classified as a four-lane Collector between Regents Road and Towne Centre Drive and as a four-lane Major east of Towne Centre Drive. It is currently built to these classifications, except east of Towne Centre Drive, where only two lanes exist. The speed limit is posted at 30 mph. Curbside parking is generally allowed. All of the study intersections are, or will be, signalized.

Regents Road — Regents Road is classified as a four-lane Major over its entire length. It currently provides four lanes everywhere except for a two-lane section between Genesee Avenue and Executive Drive. Regents Road runs south and north of Rose Canyon, but it does not currently cross then canyon; a bridge connection over Rose Canyon is planned. The speed limit ranges from 25 mph to 40 mph. The City has a Capital Improvement Project (CIP) to widen the two-lane section between Genesee Avenue and Executive Drive to four lanes. The design is complete, and the funding is secured. Construction should begin in 2007.

Governor Drive — Governor Drive is classified as a four-lane Major. It is currently built as a four-lane Collector west of Regents Road and east of Genesee Avenue. The speed limit ranges from 25 to 35 mph and curbside parking is generally allowed.

Existing Traffic Volumes

Existing traffic volumes include the ADT volumes as well as the AM and PM peak period (7-9 AM and 4-6 PM) traffic counts, conducted and/or collected for the key roadways and intersections within the project study area. The AM and PM peak hour manual turning movement counts were conducted in March 2002 while the University of California, San Diego (UCSD) was in session. Existing counts were reviewed with the City's assistance, to determine the validity of Year 2002 counts. It was determined the traffic counts were conducted in accordance with City standards of practice, were consistent with other traffic studies in the area, and were generally higher then counts conducted in the Year 2005, with the exception of the Nobel Drive/I-805 interchange. Year 2004 and 2005 count data was used for the Nobel Drive/I–805 ramps, Nobel Drive/Miramar Road, and Nobel Drive/Towne Centre Drive intersections to account for the maturing of the Nobel Drive/I-805 interchange, which opened in February 2002. Supplemental traffic counts and forecast volumes for the I-5/Genesee Avenue interchange associated with the I-5/North Coast HOV/Managed Lanes project were obtained

from Caltrans. Existing ADT for the project area is shown on Figure 5.3-1, *Existing Daily Volumes*, and summarized in Table 5.3-2, *Existing Street Segment Operations*.

Existing Street Segments Operations

A total of 55 street segments were evaluated for existing conditions. Table 5.3-2, *Existing Street Segment Operations*, shows the existing street segment operations on a daily basis in the project study area. The majority of street segments operate at LOS D or better under existing conditions. However, the following 11 segments were calculated to operate below LOS D:

Genesee Avenue

- I-5 to Campus Point Drive—LOS E
- Nobel Drive to Governor Drive—LOS E
- Governor Drive to SR 52—LOS E

La Jolla Village Drive

- West of I-5—LOS E
- Towne Center Drive to I-805—LOS E

Miramar Road

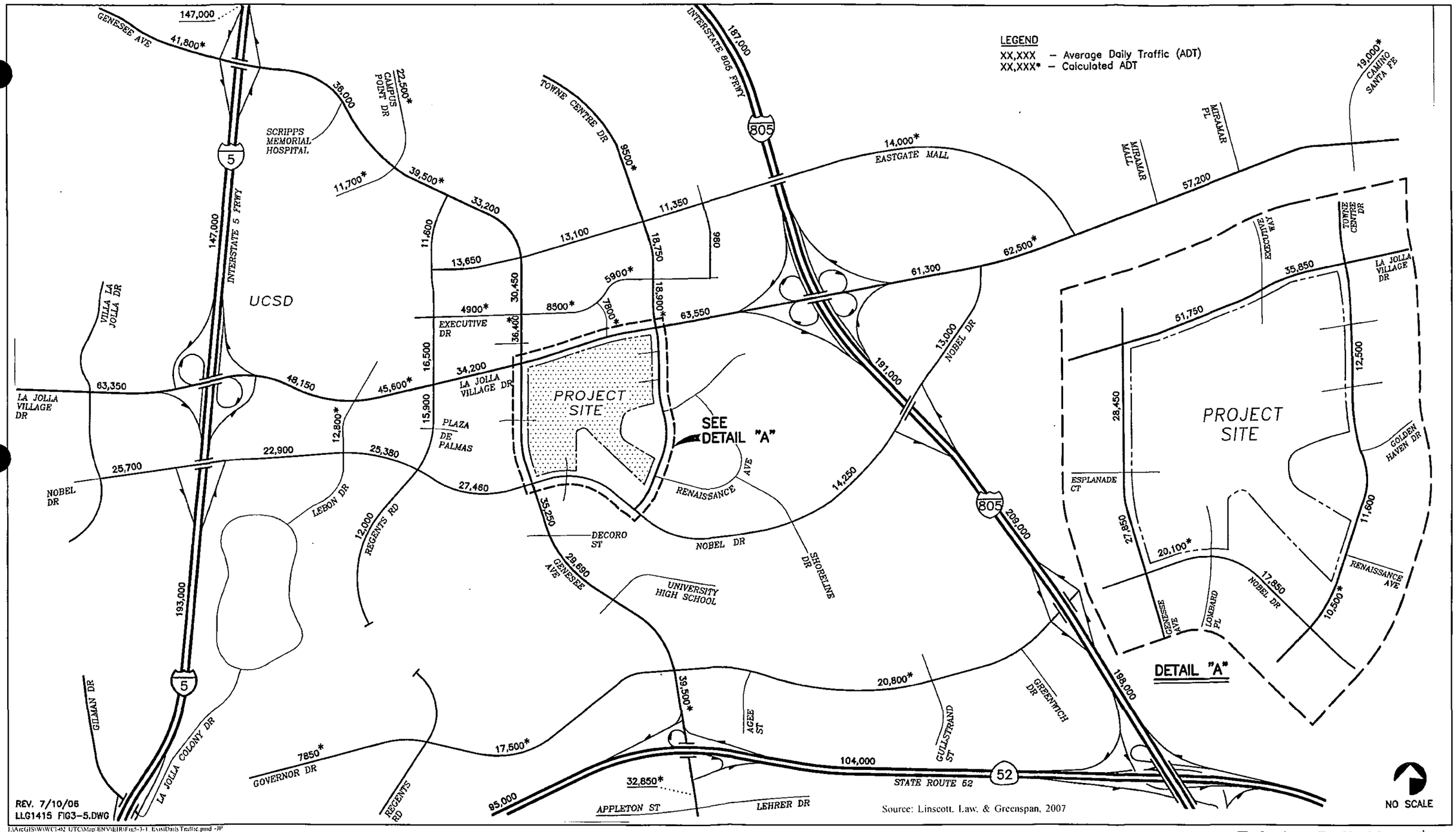
- I-805 to Nobel Drive—LOS F
- Nobel Drive to Eastgate Mall—LOS F
- Eastgate Mall to Camino Santa Fe—LOS E

Eastgate Mall

- Regents Road to Genesee Avenue—LOS E
- I-805 to Miramar Road—LOS E

Campus Point Drive

- North of Genesee Avenue—LOS F



Existing Daily Volumes

UTC REVITALIZATION PROJECT

Figure 5.3-1

Table 5.3-2
EXISTING STREET SEGMENT OPERATIONS

Roadway Segment	Lanes	Functional Classification	Capacity (LOS E)[1]	Existing ADT[2]	V/C[3]	LOS[4]
GENESEE AVENUE						
West of I-5	6	Prime Arterial	60,000	41,800	0.70	C
I-5 to Campus Point Dr.	4	Major Arterial	40,000	36,000	0.90	E
Campus Point Dr. to Regents Rd.	6	Major Arterial	50,000	39,500	0.79	C
Regents Rd. to Eastgate Mall	6	Major Arterial	50,000	33,200	0.66	C
Eastgate Mall to Executive Dr.	6	Major Arterial	50,000	30,450	0.61	C
Executive Dr. to La Jolla Village Dr.	6	Major Arterial	50,000	36,400	0.73	C
La Jolla Village Dr. to Esplanade Ct.	6	Major Arterial	50,000	28,450	0.57	C
Esplanade Ct. to Nobel Dr.	6	Major Arterial	50,000	27,850	0.56	B
Nobel Dr. to Governor Dr.	4	Major Arterial	40,000	35,250	0.88	E
Governor Dr. to SR 52	4	Major Arterial	40,000	39,500	0.99	E
South of SR 52	4	Major Arterial	40,000	32,850	0.82	D
LA JOLLA VILLAGE DRIVE						
West of I-5	7	Prime Arterial	65,000	63,350	0.97	E
I-5 to Lebon Dr.	6	Prime Arterial	60,000	48,150	0.80	C
Lebon Dr. to Regents Rd.	6	Prime Arterial	60,000	45,600	0.76	C
Regents Rd. to Genesee Ave.	6	Prime Arterial	60,000	34,200	0.57	B
Genesee Ave. to Executive Way	6	Prime Arterial	60,000	51,750	0.86	D
Executive Way to Towne Centre Dr.	6	Prime Arterial	60,000	35,850	0.60	C
Towne Centre Dr. to I-805	7	Prime Arterial	65,000	63,550	0.977	E
MIRAMAR ROAD						
I-805 to Nobel Dr.	6	Prime Arterial	60,000	61,300	1.02	F
Nobel Dr. to Eastgate Mall	6	Prime Arterial	60,000	62,500	1.04	F
Eastgate Mall to Camino Santa Fe	6	Prime Arterial	60,000	57,200	0.95	E
CAMINO SANTA FE						
North of Miramar Rd	6	Major Arterial	50,000	19,000	0.38	A
REGENTS ROAD						
Genesee Ave. to Eastgate Mall	2	Collector	15,000	11,600	0.77	D
Executive Dr. to La Jolla Village Dr.	4	Major Arterial	40,000	16,500	0.41	B
La Jolla Village Drive to Nobel Dr.	5	Major Arterial	45,000	15,900	0.35	A
South of Nobel Dr.	4	Major Arterial	40,000	12,000	0.30	A
TOWNE CENTRE DRIVE						
North of Eastgate Mall	4	Major Arterial	40,000	9,500	0.24	A
Eastgate Mall to Executive Dr.	4	Major Arterial	40,000	18,750	0.47	B
Executive Dr. to La Jolla Village Dr.	4	Collector	30,000	18,900	0.63	C
La Jolla Village Dr. to Golden Haven Dr.	4	Collector	30,000	12,500	0.42	B
Golden Haven Dr. to Renaissance Dr.	4	Collector	30,000	11,600	0.38	B
Renaissance Dr. to Nobel Dr.	4	Collector	30,000	10,500	0.35	B
JUDICIAL DRIVE						
Eastgate Mall to Executive Dr.	4	Major Arterial	40,000	980	0.02	A
EASTGATE MALL						
Regents Rd. to Genesee Ave.	2	Collector	15,000	13,650	0.91	E
Genesee Ave. to Towne Centre Dr.	4	Major Arterial	40,000	13,100	0.33	A
Towne Centre Dr. to I–805	4	Collector	30,000	11,350	0.38	B
I-805 to Miramar Rd.	2	Collector	15,000	14,000	0.93	E

Table 5.3-2 (cont.)
EXISTING STREET SEGMENT OPERATIONS

Roadway Segment	Lanes	Functional Classification	Capacity (LOS E)[1]	Existing ADT[2]	V/C[3]	LOS[4]
EXECUTIVE DRIVE						
Regents Rd. to Genesee Ave.	4	Collector	30,000	4,900	0.16	A
Genesee Ave. to Executive Way	4	Collector	30,000	8,500	0.28	A
Executive Way to Towne Centre Dr.	4	Collector	30,000	5,900	0.20	A
NOBEL DRIVE						
West of I–5	6	Major Arterial	50,000	25,700	0.51	B
I–5 to Lebon Dr.	6	Major Arterial	50,000	22,900	0.46	B
Lebon Dr. to Regents Rd.	4	Major Arterial	40,000	25,380	0.63	C
Regents Rd. to Genesee Ave.	6	Major Arterial	50,000	27,460	0.55	B
Genesee Ave. to Lombard Pl.	4	Prime Arterial	45,000	20,100	0.45	B
Lombard Pl. to Towne Centre Dr.	4	Prime Arterial	45,000	17,850	0.40	B
Towne Centre Dr. to I–805	6	Prime Arterial	60,000	14,250	0.24	A
I–805 to Miramar Rd.	4	Major Arterial	40,000	13,000	0.33	A
CAMPUS POINT DRIVE						
North of Genesee Ave.	3	Collector	15,000	22,500	1.50	F
South of Genesee Ave.	4	Collector	30,000	11,700	0.39	B
EXECUTIVE WAY						
Executive Dr. to La Jolla Village Dr.	4	Collector	30,000	7,800	0.26	A
LEBON DRIVE						
La Jolla Village Dr. to Nobel Dr.	5	Collector	35,000	12,800	0.37	B
GOVERNOR DRIVE						
West of Regents Rd.	4	Collector	30,000	7,850	0.26	A
Regents to Genesee Ave.	4	Major Arterial	40,000	17,500	0.44	B
Genesee Ave. to I–805	4	Collector	30,000	20,800	0.69	D

Source: LLG 2007
1 Capacity based on roadway classification operating at LOS E.
2 Average Daily Traffic.
3 Volume to Capacity.
4 Level of Service.

Existing Intersection Operations

A total of 55 intersections were evaluated for existing conditions to compare with post-project conditions and to determine the potential for significant impacts. As shown in Table 5.3-3, *Existing Intersection Operations,* the majority of intersections operate at LOS D or better. The LOS is typical of intersections located in a densely developed urban area. Appendix B contains the calculation sheets. The following ~~ten~~ eleven intersections currently operate below LOS D:

- Genesee Avenue / I-5 Northbound Ramps, LOS E–AM peak period
- Genesee Avenue / Campus Point Drive, LOS F–AM peak period
- La Jolla Village Drive / Villa La Jolla Drive, LOS E–PM peak period
- La Jolla Village Drive / Regents Road, LOS F–AM and LOS E–PM peak periods

- La Jolla Village Drive / Genesee Avenue, LOS F–AM peak period
- Miramar Road / Camino Santa Fe, LOS F–AM peak period
- Towne Centre Drive / North UTC Driveway (unsignalized), LOS E–AM peak period
- Towne Centre Drive / South UTC Driveway (unsignalized), LOS F–AM peak period
- Governor Drive / Genesee Avenue, LOS F–AM and LOS E–PM peak periods
- SR 52 EB Ramps / Genesee Avenue, LOS E–PM peak period
- Appleton Street / Lehrer Drive / Genesee Avenue, LOS E–AM peak period

Table 5.3-3
EXISTING INTERSECTION OPERATIONS

Intersection	Peak Hour	Existing	
		Delay[1]	LOS[2]
GENESEE AVENUE			
Genesee Avenue / I-5 SB Ramps	AM	~~32.0~~30.5	C
	PM	~~24.2~~50.3	~~C~~D
Genesee Avenue / I-5 NB Ramps	AM	~~31.6~~76.6	~~C~~E
	PM	~~18.8~~46.9	~~B~~D
Genesee Avenue / Scripps Hospital	AM	22.0	C
	PM	19.3	B
Genesee Avenue / Campus Point Drive	AM	104.9	F
	PM	51.7	D
Genesee Avenue / Regents Road	AM	24.6	C
	PM	8.6	A
EASTGATE MALL			
Eastgate Mall / Regents Road	AM	10.9	B
	PM	9.8	A
Eastgate Mall / Genesee Avenue	AM	31.2	C
	PM	25.0	C
Eastgate Mall / Towne Centre Drive	AM	21.2	C
	PM	22.9	C
Eastgate Mall / Judicial Drive	AM	12.8	B
	PM	9.1	A
EXECUTIVE DRIVE			
Executive Drive / Genesee Avenue	AM	22.4	C
	PM	27.9	C
Executive Drive / Executive Way	AM	32.6	C
	PM	24.6	C
Executive Drive / Towne Centre Drive	AM	20.2	C
	PM	26.3	C
EXECUTIVE SQUARE			
Executive Square / Genesee Avenue	AM	32.5	C
	PM	19.7	B

Table 5.3-3 (cont.)
EXISTING INTERSECTION OPERATIONS

Intersection	Peak Hour	Existing	
		Delay[1]	LOS[2]
LA JOLLA VILLAGE DRIVE			
La Jolla Village Drive / Villa La Jolla Drive	AM	43.2	D
	PM	61.5	E
La Jolla Village Drive / I–5 SB Ramps	AM	15.2	B
	PM	27.9	C
La Jolla Village Drive / I–5 NB Ramps	AM	9.2	A
	PM	5.9	A
La Jolla Village Drive / Lebon Drive	AM	30.9	C
	PM	20.0	C
La Jolla Village Drive / Regents Road	AM	86.7	F
	PM	62.1	E
La Jolla Village Drive / Genesee Avenue	AM	96.7	F
	PM	31.2	C
La Jolla Village Drive / Towne Centre Drive	AM	47.5	D
	PM	47.1	D
MIRAMAR ROAD			
Miramar Road / Nobel Drive	AM	21.3	C
	PM	18.2	B
Miramar Road / Eastgate Mall	AM	7.4	A
	PM	37.8	D
Miramar Road / Miramar Mall	AM	3.4	A
	PM	6.4	A
Miramar Road / Miramar Place	AM	11.0	B
	PM	8.6	A
Miramar Road / Camino Santa Fe	AM	110.3	F
	PM	52.0	D
PROJECT DRIVEWAYS			
La Jolla Village Drive / Executive Way	AM	18.6	B
	PM	33.8	C
Genesee Avenue / Esplanade Court	AM	27.5	C
	PM	26.2	C
Nobel Drive / Lombard Place (unsignalized)	AM	1.7	A
	PM	3.1	A
Towne Centre Drive / North UTC driveway (unsignalized)	AM	47.9	E
	PM	10.8	B
Towne Centre Drive / South UTC driveway (unsignalized)	AM	135.3	F
	PM	21.2	C
PLAZA DE PALMAS			
Plaza de Palmas / Mahaila Avenue / Regents Road	AM	18.2	B
	PM	12.6	B
GOLDEN HAVEN DRIVE			
Golden Haven Drive / Towne Centre Drive	AM	4.2	A
	PM	11.4	B
RENAISSANCE AVENUE			
Renaissance Avenue / Towne Centre Drive	AM	9.5	A
	PM	7.6	A

Table 5.3-3 (cont.)
EXISTING INTERSECTION OPERATIONS

Intersection	Peak Hour	Existing	
		Delay[1]	LOS[2]
NOBEL DRIVE			
Nobel Drive / Villa La Jolla Drive	AM	16.6	B
	PM	16.9	B
Nobel Drive / I–5 SB Ramp	AM	2.3	A
	PM	4.7	A
Nobel Drive / I–5 NB Ramp	AM	10.8	B
	PM	17.2	B
Nobel Drive / Caminito Plaza Centro	AM	8.4	A
	PM	7.7	A
Nobel Drive / Lebon Drive	AM	47.5	D
	PM	32.2	C
Nobel Drive / Regents Road	AM	43.0	D
	PM	38.7	D
Nobel Drive / Costa Verde Boulevard / Cargill Avenue	AM	43.0	D
	PM	43.1	D
Nobel Drive / Genesee Avenue	AM	33.5	C
	PM	44.6	D
Nobel Drive / Towne Centre Drive	AM	21.4	C
	PM	19.5	B
Nobel Drive / Shoreline Drive	AM	13.0	B
	PM	12.8	B
Nobel Drive / I–805 SB Ramp	AM	1.1	A
	PM	2.0	A
Nobel Drive / I–805 NB Ramp	AM	3.7	A
	PM	6.0	A
DECORO STREET			
Decoro Street / Genesee Avenue	AM	40.7	D
	PM	29.2	C
UNIVERSITY CITY HIGH SCHOOL			
University City High School / Genesee Avenue	AM	33.4	C
	PM	8.3	A
GOVERNOR DRIVE			
Governor Drive / Regents Road	AM	17.1	C
	PM	19.8	B
Governor Drive / Genesee Avenue	AM	90.1	F
	PM	75.6	E
Governor Drive / Agee Street	AM	7.9	A
	PM	9.5	A
Governor Drive / Gullstrand Street	AM	8.7	A
	PM	10.7	B
Governor Drive / Greenwich Street	AM	18.2	B
	PM	6.0	A

Table 5.3-3 (cont.) EXISTING INTERSECTION OPERATIONS			
Intersection	Peak Hour	Existing	
		Delay[1]	LOS[2]
SR 52			
SR 52 WB Ramps / Genesee Avenue (unsignalized)	AM	8.8	A
	PM	34.6	D
SR 52 EB Ramps / Genesee Avenue	AM	28.6	C
	PM	63.9	E
APPLETON STREET / LEHRER STREET			
Appleton Street / Lehrer Drive / Genesee Avenue	AM	72.4	E
	PM	20.3	C

Source: LLG 2007 (updated in 2008).
1 Average delay expressed in seconds per vehicle.
2 Level of Service.

Existing Freeway Segment Operations

A total of nine freeway segments were evaluated for existing conditions. Table 5.3-4, *Existing Freeway Segment Operations,* shows existing freeway segment operations on I-5, I-805 and SR 52. Appendix B contains detailed calculations sheets. As shown in Table 5.3-4, all nine segments were calculated to operate below LOS D in either or both the AM and PM peak hour periods in either or both the northbound or southbound directions. In response to comments from Caltrans, existing freeway segment operations for I-805 are updated in Table 5.3-4.

Table 5.3-4 EXISTING FREEWAY SEGMENT OPERATIONS							
Freeway and Segment	Direction & Number of Lanes[1]		ADT[2]	AM		PM	
				V/C	LOS	V/C	LOS
I-5							
I-805 to Genesee Ave.	NB Mainlines	4M	147,000	0.925	E	0.680	C
	SB Mainlines	4M	147,000	0.533	B	0.962	E
Genesee Ave. to La Jolla Village Dr.	NB Mainlines	4M	147,000	0.925	E	0.680	C
	SB Mainlines	4M	147,000	0.533	B	0.962	E
La Jolla Village Dr. to Gilman Dr.	NB Mainlines	4M	193,000	1.214	F(0)	0.892	D
	SB Mainlines	4M	193,000	0.700	C	1.264	F(1)
I-805							
I-5 to La Jolla Village Dr.	NB Mainlines	4M+1A	187,000	1.025 ~~0.601~~	F(0)~~B~~	0.625 ~~0.815~~	C~~D~~
	SB Mainlines	4M+1A	187,000	0.457 ~~0.981~~	B~~E~~	0.944 ~~0.879~~	E~~D~~
La Jolla Village Dr. to Nobel Dr	NB Mainlines	4M+1A	191,000	1.047 ~~0.614~~	F(0)~~B~~	0.638 ~~0.833~~	C~~D~~
	SB Mainlines	4M+1A	191,000	0.467 ~~1.002~~	B~~F(0)~~	0.965 ~~0.898~~	E~~D~~

Table 5.3-4 (cont.)
EXISTING FREEWAY SEGMENT OPERATIONS

Freeway and Segment	Direction & Number of Lanes[1]		ADT[2]	AM		PM	
				V/C	LOS	V/C	LOS
I–805 (cont.)							
Nobel Dr. to Governor Dr.	NB Mainlines	4M+1A	209,000	1.146 ~~0.672~~	F(0)~~C~~	0.698 ~~0.911~~	C~~D~~
	SB Mainlines	4M+1A	209,000	0.511 ~~1.096~~	B~~F(0)~~	1.055 ~~0.983~~	F(0)~~E~~
Governor Dr. to SR 52	NB Mainlines	4M+1A	198,000	1.086 ~~0.636~~	F(0)~~C~~	0.662 ~~0.863~~	C~~D~~
	SB Mainlines	4M+1A	198,000	0.484 ~~1.039~~	B~~F(0)~~	1.000 ~~0.931~~	E
SR 52							
I–5 to Genesee Ave.	EB Mainlines	2M	95,000	0.788	C	1.309	F(1)
	WB Mainlines	2M	95,000	1.113	F(0)	0.759	C
Genesee Ave. to I–805	EB Mainlines	2M	104,000	0.862	D	1.433	F(2)
	WB Mainlines	2M	104,000	1.219	F(0)	0.831	D

Source: LLG 2007 (updated in 2008).
1 M: Mainline, A: Auxiliary Lane. Ex. 4M+2A=4 Mainlines + 2 Auxiliary Lanes
2 Existing ADT Volumes from Caltrans

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.8	F(2)	1.45
D	0.92	F(3)	>1.46
E	1		

Existing Freeway Ramp Meters

The ramp metering analysis was conducted at ten metered freeway ramps during the AM and PM peak hour periods for I-5 and I-805. Table 5.3-5, *Existing Ramp Meter Operations – Fixed Rate and Observed*, provides a comparative summary of the existing delay and the actual delay observed by the project traffic engineer. The ramp meters analyzed were calculated to cause considerable delays and queuing during at least one period for traffic entering the freeway. This is to be expected, as the very nature of a ramp meter is to restrict freeway access at a ramp location during periods of high demand, with the intent on facilitating freeway mobility. It is common during periods of peak demand for a ramp meter to cause long delays and queues for vehicles entering the freeway.

The fixed rate approach used in this report generally tends to produce unrealistic queue lengths and delays. The results are theoretical and based on the most restrictive ramp meter rate. Because ramp meter rates are not constant, even within peak hour periods, the analysis was conducted using the most restrictive meter rates, which were obtained from Caltrans. The meter rates dynamically adjust based on the level of traffic on the freeway mainlines. Furthermore, the fixed rate approach does not take into account driver behavior such as "ramp shopping" or trip diversion. For this reason, field observations were included in Table 5.3-5 for comparison of the maximum observed queue and delay at ramp meter locations.

Table 5.3-5
EXISTING RAMP METER OPERATIONS—FIXED RATE AND OBSERVED

Location	Peak Period	Calculated[1]		Observed [2]	
		Delay (min)	Queue (feet)	Delay (min)	Queue (feet)
I-805/LA JOLLA VILLAGE DRIVE/MIRAMAR ROAD INTERCHANGE					
WB Miramar Road to SB I-805	AM	19	3,150	Ramp Meter Not Activated/No queue or delay observed	
	PM	18	3,100	7.5	825
WB Miramar Road to NB I-805	AM	36	3,626	2.5	375
	PM	142	14,166	Ramp Meter Not Activated/No queue or delay observed	
EB La Jolla Village Drive to SB I-805	AM	0	0	Ramp Meter Not Activated/No queue or delay observed	
	PM	12	2,344	7.8	1500
EB La Jolla Village Drive to NB I-805	AM	23	3,453	3.0	475
	PM	82	12,229	Ramp Meter Not Activated/No queue or delay observed	
I-805/NOBEL DRIVE INTERCHANGE					
Nobel Drive to SB I-805	AM	12	1,385	Ramp Meter Not Activated/No queue or delay observed	
	PM	60	7,250	10.6	1700
I-5/LA JOLLA VILLAGE DRIVE INTERCHANGE					
WB La Jolla Village Drive to SB I-5	AM	0	0	Ramp Meter Not Activated/No queue or delay observed	
	PM	39	9,225	3.6	625
WB La Jolla Village Drive to NB I-5	AM	87	8,525	No data	No data
	PM	22	2,100	Intermittent Ramp Meter Activity/No queue or delay observed	
EB La Jolla Village Drive to SB I-5	AM	245	20,783	Ramp Meter Not Activated/No queue or delay observed	
	PM	354	30,069	4.5	750
EB La Jolla Village Drive to NB I-5	AM	59	5,710	No data	No data
	PM	73	7,134	Intermittent Ramp Meter Activity/No queue or delay observed	

Table 5.3-5 (cont.)
EXISTING RAMP METER OPERATIONS—FIXED RATE AND OBSERVED

Location	Peak Period	Calculated[1]		Observed [2]	
		Delay (min)	Queue (feet)	Delay (min)	Queue (feet)
I-5/NOBEL DRIVE INTERCHANGE					
EB & WB Nobel Drive to SB I-5	AM	0	0	No data	No data
	PM	12	3,510	No data	No data

Source: LLG 2007
1 Results based on Caltrans' rate code F (most restrictive).
2 Observations conducted from September through October 2002 and April 2007 between the hours of 7:00-9:00 AM and 4:00-6:00 PM.
3 WB = Westbound; SB = Southbound; EB = Eastbound; NB = Northbound

Existing Parking Supply

The existing UTC shopping center has 4,511 spaces allocated on site provided in a combination of surface parking lots and parking structures. Parking is provided for 35 bicycles in 8 rack locations distributed throughout the site.

Existing Transit

An on-site bus transit center is located on the west side of the shopping center near the existing Macys department store. This transit center has six bus bays and serves as a transit bus hub for the University City community. The San Diego Metropolitan Transit System (MTS) currently services the UTC area with bus lines 5, 30, 34, 41, 50, 150, 921, 931 and 960. The North County Transit District (NCTD) also services the UTC area with bus lines 101 and 310.

5.3.2 Impacts

This section examines the impact of project-generated traffic upon the roadway system in the vicinity of the project site. The analysis, which was conducted in conformance with the *City of San Diego Traffic Impact Study Manual* (1998), establishes a process to determine the applicable study area for a traffic impact study and the analytical methods to be used, as well as measures to determine the significance of changes in LOS, delay and/or congestion. This process is generally consistent with SANDAG's regional CMP.

Significance Criteria

In accordance with the City of San Diego's Significance Determination Thresholds (2007a), traffic/circulation impacts would be significant under CEQA under the following applicable circumstances:

- Any intersection or street/freeway segment affected by a project would operate at LOS E or F under either direct or cumulative conditions, and the project would exceed allowable increases in delay; intersection capacity utilization for affected intersections; V/C; or speed for affected roadway segments, CMP arterials, freeway ramps, and freeway segments (see Table 5.3-6, *Traffic Significance Criteria*).

- The project would increase traffic hazards to motor vehicles, bicyclists or pedestrians due to proposed non-standard design features (e.g., poor sight distance, proposed driveway onto an access-restricted roadway).

Table 5.3-6
TRAFFIC SIGNIFICANCE CRITERIA

Level of Service with Project	Allowable Increase Due to Project Impacts[1]					
	Freeways	Street/Freeway Segments		Intersections	Freeway Ramps	CMP Arterials
	V/C	V/C	Speed (mph)	Delay (sec.)	Delay (min.)	Speed (mph)
E & F[2]	0.01	0.02	1	2	2[3]	1

Source: City of San Diego Traffic Impact Study Manual 1998

1 If a proposed project's traffic impacts exceed the values shown in the table, then the impacts are deemed "significant." The project applicant shall identify "feasible mitigations".

2 The acceptable LOS standard for roadways and intersections in San Diego is LOS D. However, for undeveloped locations, the goal is to achieve LOS C.

3 The impact is only considered significant if the total delay exceeds 15 minutes.

Delay = average stopped delay per vehicle (measured in seconds)

V/C = volume to capacity ratio (capacity at LOS E should be used)

Speed = arterial speed (measured in miles per hour) for CMP analyses

In January 2007, the City Development Services Department adopted new traffic thresholds for project applications deemed complete after January 1, 2007. The new thresholds effectively halved the significance threshold for intersections and street segments operating at LOS F and added thresholds for freeways and their ramps. Because the application for the UTC Revitalization project was deemed complete in ~~February 2002~~December 2001, the criteria do not apply and the analysis contained in the approved TIS and presented in the EIR reflects the thresholds in place at the time the application was deemed complete (and through December 2006).

Issue 1: Would the proposal result in an increase in projected traffic that is substantial in relation to the existing traffic load and capacity of the street system?

The analysis below is based on the proposed project (i.e., Master PDP scenario 1). A description and analysis of the various land use scenarios proposed by the Master PDP, including the worst-case Maximum Residential scenario, is contained under Issue 2 of this section.

Trip Generation

Trip generation estimates for the proposed development were developed based on the *City of San Diego Trip Generation Manual* (2003e). For purposes of the trip generation assessment, the proposed project land uses were determined to be "Regional Retail" and "Multi-Family Residential."

The project site offers many transit opportunities with a regional transit center on site and a community of mixed land uses with excellent connectivity via existing and planned pedestrian bridges. The transit center would also be expanded in the future as part of the proposed project. However, no transit reduction was applied to the retail portion of the project, despite the availability of such transit opportunities. The term "community mixed-use" is used in this analysis to describe a community of diverse and compatible land uses emphasizing a pedestrian-oriented environment and reinforcing alternate modes of transportation while not excluding automobile use. The term "pass-by" refers to vehicles that are attracted to the site and are already on the adjacent roadway system. Transit, community mixed-use, and pass-by reductions were applied to the residential trips, where applicable, and without deviation, per the *City of San Diego Traffic Impact Study Manual*. Considering that the project site is located in a dense urban setting with many modal choices available, such an approach is considered conservative.

The trips generated by the retail and residential uses proposed on site are summarized in Table 5.3-7, *Project Trip Generation*, and shown in Figure 5.3-2, *Project Traffic Distribution*, Figure 5.3-3, *Project Trips – AM/PM Peak Hours*, and Figure 5.3-4, *Project Trips – Daily Volumes*. In the table, project traffic is identified as "driveway," "cumulative" or "pass-by." Driveway trips account for the total number of trips generated by the site (cumulative plus pass-by trips) and are assigned to the project driveways. Cumulative trips are new trips added to the surrounding community and are used for the determination of project impacts (driveway minus pass-by trips). Pass-by trips are existing vehicle trips deviated from the roadway to the site (as described above). The proposed project would generate approximately 17,800 cumulative ADT, with 256 inbound and 182 outbound cumulative trips during the AM peak hour, and ~~824~~ 825 inbound and 778 outbound cumulative trips during the PM peak hour. The effects of these additional trips associated with the proposed project on roadway segments, intersections, freeways, and ramp meters are described below. A description and analysis of the various land use scenarios proposed by the Master PDP is contained under Issue 2 of this report.

The near-term analysis year of 2010 was selected because it is the closest five year timeframe for which SANDAG data are available.

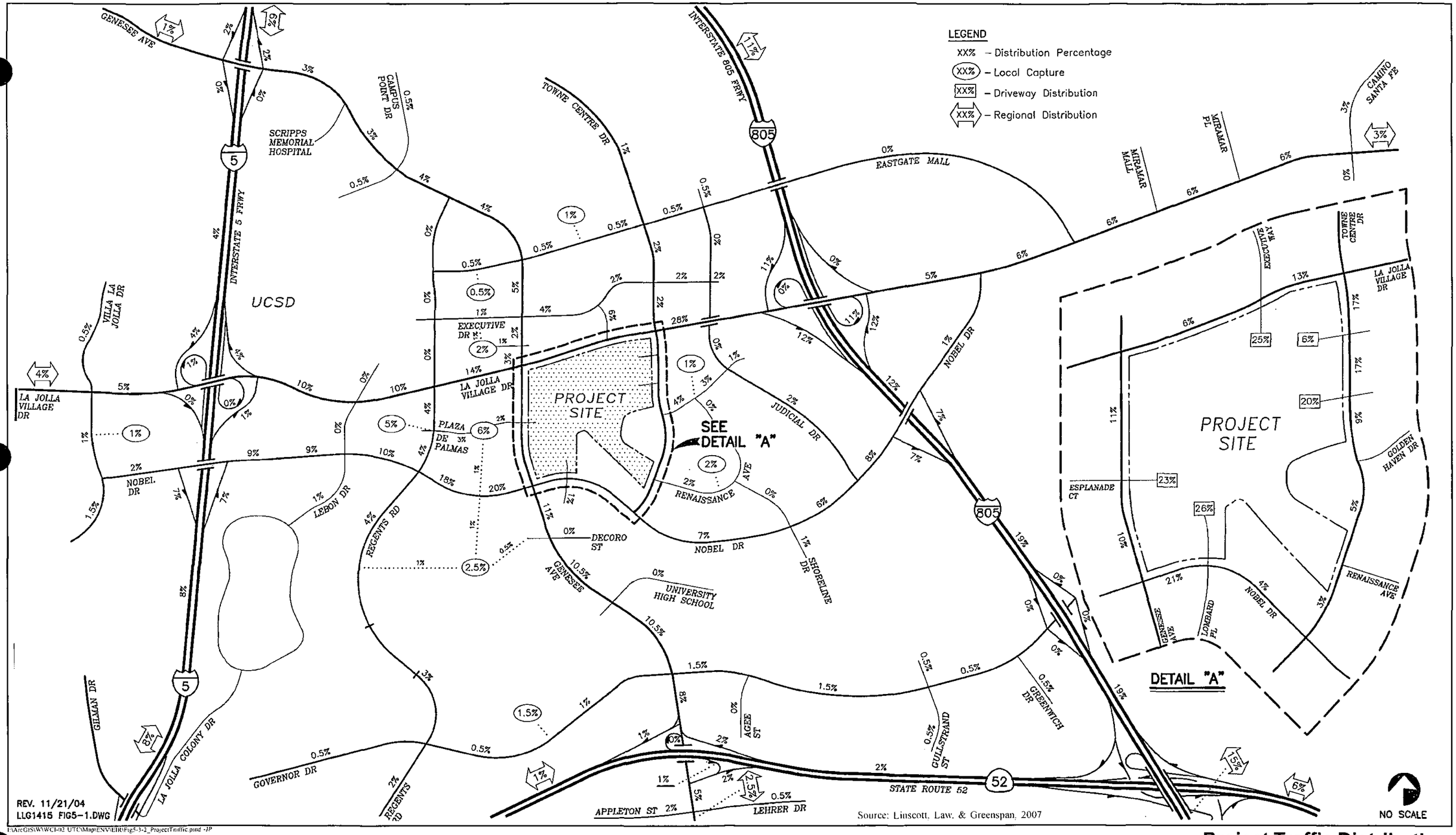
Future Conditions

In assessing the traffic impacts of the proposed project, LLG reviewed planned, on-going and future roadway improvements in the study area. The City of San Diego currently has plans for several major roadway improvements within the study area. These improvements have been identified in City planning programs, including the Capital Improvement Program (CIP) and the North University City Public Facilities Financing Plan and Facilities Benefit Assessment (NUC FBA) (2006). The City Council adopted these programs to ensure that all properties, including those that are not yet fully developed, will pay their fair share of the cost of funding necessary public facilities. The NUC FBA contains a development forecast and analysis and a CIP listing public facility needs. The mechanics of the NUC FBA are that the owner of the parcel being developed is assessed an amount determined by the type and extent of the permit being requested. Monies collected are deposited in a special account to be used solely for capital improvements in the NUC FBA for the area of benefit.

Table 5.3-7
PROJECT TRIP GENERATION

Land Use	Trip Rate[1]	Trip Type	Weekday ADT[2]	AM Peak Hour		PM Peak Hour	
				In	Out	In	Out
Regional Retail (750,000 SF)	30.6 trips/1,000 SF[3] AM - 2% of ADT {70:30}[4] PM - 9% of ADT {50:50}	Driveway	22,950	321	138	1,033	1,033
	Community Mixed-Use Reduction[5]:	Driveway	10%	8%		10%	
			(2,295)	(26)	(11)	(103)	(103)
	Transit Reduction[5]:	Driveway	0%	0%		0%	
			(0)	(0)	(0)	(0)	(0)
	Subtotal:	Cumulative (80%)	16,524	236	102	744	744
		Pass-By[6] (20%)	4,131	59	25	186	186
		Driveway	20,655	295	127	930	930
Multi-Family Residential (250 units)	6 trips/dwelling unit AM - 8% of ADT {20:80} PM - 9% of ADT {70:30}	Driveway	1,500	24	96	95	40
	Community Mixed-Use Reduction[5]:	Driveway	10%	8%		10%	
			(150)	(2)	(8)	(9)	(4)
	Transit Reduction[5]:	Driveway	5%	9%		6%	
			(68)	(2)	(8)	(5)	(2)
	Subtotal:	Cumulative (100%)	1,282	20	80	81	34
		Pass-By[6] (0%)	0	0	0	0	0
		Driveway	1,282	20	80	81	34
TOTAL (ADTs rounded):		Cumulative	17,800	256	182	825	778
		Pass-By	4,100	59	25	186	186
		Driveway	21,900	315	207	1,011	964

Source: LLG 2007
1 Based on the City of San Diego Trip Generation Manual (2003e).
2 Traffic volumes expressed in vehicles per day.
3 Based on Regional Retail Trip Generation (Ln (T) = 0.756 Ln (X) + 5.25, where T is the number of trips and X is the square footage in 1,000's) at post expansion square footage (1,061,400 + 750,000 = 1,811,400 SF).
4 Ratio denotes in:out traffic split.
5 Reductions per the City Traffic Impact Study Manual (refer to Appendix D).
6 Pass-by represents the difference between Driveway and Cumulative trips, per the City Trip Generation Manual (refer to Appendix D)
Driveway Trips = vehicles entering and exiting project driveways (Driveway = Cumulative + Pass-By)
Cumulative Trips = net new vehicles added to the network
Pass-By Trips = vehicles already on the street network diverting to the project site



Source: Linscott, Law, & Greenspan, 2007

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Project Traffic Distribution

UTC REVITALIZATION PROJECT

Figure 5.3-2

NOTES: – AM/PM Peak hour volumes are shown at the intersections

GENESSEE AVE
SCRIPPS MEMORIAL HOSPITAL
CAMPUS POINT DR
INTERSTATE 5 FRWY
VILLA LA JOLLA DR
UCSD
EXECUTIVE DR
LA JOLLA VILLAGE DR
NOBEL DR
TOWNE CENTRE DR
INTERSTATE 805 FRWY
EASTGATE MALL
MIRAMAR MALL
MIRAMAR PL
CAMINO SANTA FE
EXECUTIVE WAY
PROJECT SITE
SEE DETAIL "A"
PLAZA DE PALMAS
JUDICIAL DR
NOBEL DR
RENAISSANCE AVE
LEBON DR
REGENTS RD
CARGILL AVE
DECORO ST
GENESSEE AVE
UNIVERSITY HIGH SCHOOL
SHORELINE DR
ESPLANADE CT
GOLDEN HAVEN DR
LOMBARD PL
GILMAN DR
LA JOLLA COLONY DR
GOVERNOR DR
AGEE ST
GUILLSTRAND ST
GREENWICH DR
APPLETON ST
LEHRER DR
STATE ROUTE 52
DETAIL "A"

REV. 11/21/05
LLG1415 FIG5-2.DWG

Source: Linscott, Law, & Greenspan, 2007

NO SCALE

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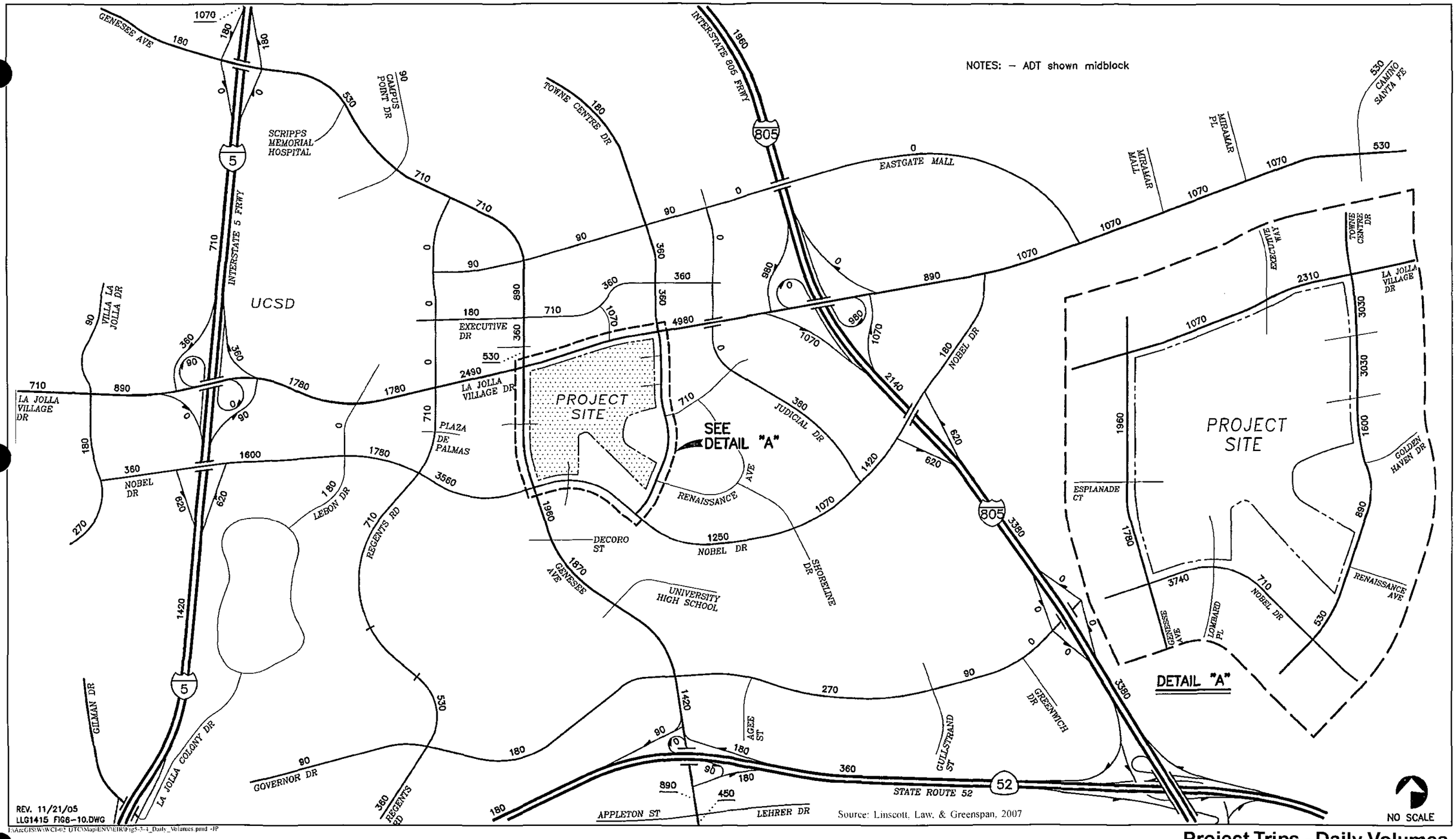
Project Trips - AM/PM Peak Hours

UTC REVITALIZATION PROJECT

Figure 5.3-3



Project Trips - Daily Volumes

UTC REVITALIZATION PROJECT

Figure 5.3-4

For the purposes of the traffic impact study prepared by LLG, it was assumed that the construction of a number of roadway improvements would be in place by the Near Term (Year 2010), pending land acquisition, based on information provided in the NUC FBA. Excerpts from this document pertaining to the study area can be found in EIR Appendix B. Based on the current NUC FBA (Fiscal Year 2007), there are no funding issues for any of the improvements that were assumed in the traffic impact study. The following list contains a brief description of the planned improvements in the project study area assumed in the NUC to be in place by the near term:

- *NUC-3:* Widen Genesee Avenue between the I-5 Interchange and Regents Road from its current four-lane cross-section to a six-lane cross-section. This improvement will include additional turn lanes and lane designation changes at the Scripps Memorial Hospital, Campus Point Drive and Regents Road intersections with Genesee Avenue.

- *NUC-13*: Widen Regents Road to a four-lane cross-section from Eastgate Mall to Genesee Avenue and from Executive Drive to Eastgate Mall. The portion of Regents Road between Executive Drive and Eastgate Mall has already been built to its four-lane classification.

- *NUC-14:* Widen Regents Road between Rose Canyon open space and Governor Drive from its current two-lane cross-section to a four-lane cross-section.

- *NUC-18:* Construct a four-lane bridge over the Atchison, Topeka & Santa Fe (AT&SF) Railroad and a portion of the floodplain connecting Regents Road.

- *NUC-33*: Extend Judicial Drive from its current terminus north of La Jolla Village Drive to its future intersection with Golden Haven Drive. Judicial Drive would cross beneath La Jolla Village Drive.

- *NUC-34:* Widen the segment of Eastgate Mall between Miramar Road and the bridge crossing at I-805 from its current two-lane cross-section to a four-lane cross-section.

- *NUC-41*: Construct a southbound right-turn lane at the intersection of La Jolla Village Drive with Regents Road.

- *NUC-47:* Widen La Jolla Village Drive between Gilman Drive and I-5 to an eight-lane cross-section (Phase III of this improvement).

- *NUC-50:* Widen the segment of Miramar Road between I-805 and Nobel Drive from its current six-lane cross-section to an eight-lane cross-section, and between Nobel Drive and Eastgate Mall

from its current six-lane cross section to a seven-lane cross-section. This improvement will add additional through lanes eastbound and westbound.

- *NUC-C:* Reconfigure the existing I-805 cloverleaf interchange into a diamond/partial cloverleaf interchange with the I-805 southbound and northbound off ramps being brought under traffic signal control. In addition, the southbound on-ramp from eastbound La Jolla Village Drive will be reconfigured to two single-occupancy vehicle and one high-occupancy vehicle (2 SOV + 1 HOV) lanes.

- *NUC-I:* Restripe the segment of La Jolla Village Drive between Towne Centre Drive and I-805 to add an additional lane, creating an eight-lane cross-section from its current seven-lane cross-section. While this improvement has since been deleted from the NUC FBA, it is still planned for in conjunction with the La Jolla Commons project currently under construction.

- *NUC-J:* Widen Nobel Drive between Lebon Drive and Regents Road and between Genesee Avenue and Towne Centre Drive from its current four-lane cross-section to a six-lane cross-section.

The analysis contained in the TIS is based on the Series 9 (2020) traffic forecast. Since commencement of the traffic report, the Series 10 (Year 2030) Model has been released and officially adopted by the City. As a result, a Series 9 versus Series 10 Model comparison was completed by LLG. The results indicated that the Series 9 Model (overall) was approximately 16 percent higher than the Series 10 Model, which can be attributed to a more aggressive transit and roadway network in the Series 10 Model (i.e. more network, less traffic). In addition, the Series 10 Model was based solely on Community Plan land uses. There are numerous CPAs proposed in the University Community that would result in higher density and traffic. The Series 9 Model was calibrated to include the CPA developments and, therefore, represents higher volumes and a more conservative analysis. In consideration that the traffic report used the most recent model available at the time and the results indicated higher volumes with the Series 9 Model; it was therefore concluded that the continued use of the Series 9 Model would be acceptable since it is a more conservative analysis.

Future Site Access

Access to the revitalized shopping center would be via the six existing driveways connected to La Jolla Village Drive, Genesee Avenue, Towne Center Drive and Nobel Drive plus one new right-in/right-out driveway along Genesee Avenue near the intersection of La Jolla Village Drive, as described in Section 3.0, *Project Description*.

Street Segment Analysis

Near-Term Conditions

In the near term without project scenario, 44 of the 55 street segments studied are forecasted to operate at LOS D or better (Table 5.3-8, *Near-Term Street Segment Operations*). Of the remaining 11 street segments, four would operate at LOS E and seven would operate at LOS F. In the near term with project scenario, significant impacts would occur on the following four street segments:

Genesee Avenue between:

- Nobel Drive and Decoro Street
- Governor Drive and SR 52

La Jolla Village Drive between:

- I-5 and Lebon Drive
- Towne Centre Drive and I-805

Horizon Year Conditions

The Horizon Year conditions assume that the planned roadway improvements identified in the North City FBA for the Near-term condition would be in place. Although the widening of Genesee Avenue (NUC-A) was scheduled; due to community concern, the City Council is reviewing the option of not widening the roadway. For this reason, the Horizon Year analysis was conducted using both roadway scenarios: with and without the Genesee Avenue widening. Because the reconstruction of the I-5/Genesee Avenue interchange (NUC-24) was scheduled but is not fully funded at this time, the Horizon Year analysis also did not assume the interchange improvements would be in place. Finally, the Horizon Year conditions presented in the TIS and summarized below, assume that near-term project traffic mitigation (see below for mitigation measures MM 5.3-1 through 5.3-14) would be in place prior to the Horizon Year.

Horizon Year Street Segment Operations Without Genesee Avenue Widening (NUC-A)

Under the horizon year without project scenario, 36 of the 55 street segments studied are forecasted to operate at LOS D or better without the widening of Genesee Avenue (Table 5.3-9a, *Horizon Year Street Segment Operations Without Genesee Avenue Widening*). Of the remaining 19 street segments, 10 would operate at LOS E and nine would operate at LOS F. Under the horizon year with project scenario, significant impacts would occur on the following six street segments:

Genesee Avenue between:

- Nobel Drive and Decoro Street
- Governor Drive and SR 52

La Jolla Village Drive between:

- I-5 and Lebon Drive
- Lebon Drive and Regents Road
- Executive Way and Towne Centre Drive
- Towne Centre Drive and I-805

Horizon Year Street Segment Operations With Genesee Avenue Widening (NUC-A)

Assuming the widening of Genesee Avenue (i.e., NUC-A in the University City FBA), the street segment results remain the same as those reported in Table 5.3-9a within the exception of four segments. Table 5.3-9b, *Horizon Year Street Segment Operations With Genesee Avenue Widening*, shows the horizon year street segment operations with Genesee Avenue during the peak hours along the four segments that differ from Table 5.3-9a. Assuming the widening of Genesee Avenue, the project would no longer have significant cumulative impacts on Genesee Avenue from Nobel Drive to Decoro Drive and from Governor Drive to SR 52.

Intersection Analysis

Near-Term Conditions

In the near-term without project scenario, 43 of 55 intersections would operate at LOS D or better during either or both the AM and PM peak hour periods. As shown in Table 5.3-10, *Near-Term Intersection Operations*, 24 intersections would operated below LOS D, with ~~17~~ 18 operating at LOS E and ~~7~~ 6 operating at LOS F in either or both the AM and PM peak hour periods. In the near-term with project scenario, significant impacts would occur at the following seven intersections:

La Jolla Village Drive at:

- Regents Road, LOS F—PM peak hour
- Genesee Avenue, LOS E—PM peak hour
- Towne Centre Drive, LOS-F—AM peak hour and LOS E—PM peak hour

Project Driveways

- Nobel Drive at Lombard Place, LOS F—PM peak hour
- Towne Centre Drive at North UTC driveway, LOS F—AM and PM peak hours
- Towne Centre Drive at South UTC driveway, LOS F—AM and PM peak hours

Governor Drive at:

- Genesee Avenue, LOS F—PM peak hour

Horizon Year Conditions

Horizon Year Intersection Operations Without Genesee Avenue Widening (NUC-A)

As traffic volumes are forecasted to increase in the horizon year, intersections that were oversaturated in the near term would continue to operate as such in the horizon year (refer to Table 5.3-11a, *Horizon Year Intersection Operations Without Genesee Avenue Widening*). Under the horizon year without project scenario without the widening of Genesee Avenue, 30 of 55 intersections would operate at LOS D or better in either or both the AM and/or PM peak hour periods. As shown in Table 5.3-11a, 29 intersections would operate below LOS D, with 17 intersections operating at LOS E and 15 operating at LOS F in either or both the AM and/or PM peak hour periods. The addition of project related traffic in the horizon year scenario would create significant impacts at the following four intersections during either or both the AM and/or PM peak hour periods:

- La Jolla Village Drive at I-805 southbound ramps, LOS E—AM peak hour
- Executive Way (Project Driveway) at La Jolla Village Drive, LOS E—AM and PM peak hours
- Nobel Drive at Genesee Avenue, LOS E—PM peak hour
- Decoro Street at Genesee Avenue, LOS F—PM peak hour

Horizon Year Intersection Operations With Genesee Avenue Widening

Assuming the widening of Genesee Avenue, the intersection results remain the same as those reported in Table 5.3-11a with the exception of five intersections. Table 5.3-11b, *Horizon Year Intersection Operations With Genesee Avenue Widening*, reports the horizon year intersection operations with Genesee Avenue widening during the peak hours for the five intersections that differ from Table 5.3-11a. Assuming the widening of Genesee Avenue, the proposed project would no longer have a significant cumulative impact at the intersection of Decoro Street/Genesee Avenue.

Table 5.3-8
NEAR TERM STREET SEGMENT OPERATIONS

Roadway Segment	Lanes	Classification	Capacity	Near Term Without Project			Near Term With Project			V/C Delta	Sig?[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Genesee Avenue											
West of I-5	6	Prime Arterial	60,000	47,530	0.792	C	47,710	0.795	C	0.003	No
I-5 to Campus Point Dr.[6]	6	Major Arterial	50,000	40,430	0.809	D	40,960	0.819	D	0.011	No
Campus Point Dr. to Regents Rd.	6	Major Arterial	50,000	40,580	0.812	D	41,290	0.826	D	0.014	No
Regents Rd. to Eastgate Mall	6	Major Arterial	50,000	35,190	0.704	C	35,900	0.718	C	0.014	No
Eastgate Mall to Executive Dr.	6	Major Arterial	50,000	32,740	0.655	C	33,630	0.673	C	0.018	No
Executive Dr. to Executive Sq.	6	Major Arterial	50,000	36,880	0.738	C	37,240	0.745	C	0.007	No
Executive Sq. to La Jolla Village Dr.	6	Major Arterial	50,000	37,540	0.751	C	38,070	0.761	C	0.011	No
La Jolla Village Dr. to Esplanade Ct.	6	Major Arterial	50,000	30,940	0.619	C	32,900	0.658	C	0.039	No
Esplanade Ct. to Nobel Dr.	6	Major Arterial	50,000	30,270	0.605	C	32,050	0.641	C	0.036	No
Nobel Dr. to Decoro St.	4	Major Arterial	40,000	36,920	0.923	E	38,880	0.972	E	0.049	YES
Decoro St. to Governor Dr.	4	Major Arterial	40,000	31,070	0.777	D	32,940	0.824	D	0.047	No
Governor Dr. to SR 52	4	Major Arterial	40,000	40,370	1.009	F	41,790	1.045	F	0.036	YES
South of SR 52	4	Major Arterial	40,000	33,820	0.846	D	34,710	0.868	D	0.022	No
La Jolla Village Drive											
West of I-5	7	Prime Arterial	65,000	67,850	1.044	F	68,740	1.058	F	0.014	No
I-5 to Lebon Dr.	6	Prime Arterial	60,000	53,350	0.889	D	55,130	0.919	E	0.030	YES
Lebon Dr. to Regents Rd.	6	Prime Arterial	60,000	49,980	0.833	C	51,760	0.863	D	0.030	No
Regents Rd. to Genesee Ave.	6	Prime Arterial	60,000	38,880	0.648	C	41,370	0.690	C	0.042	No
Genesee Ave. to Executive Way	6	Prime Arterial	60,000	56,400	0.940	E	57,470	0.958	E	0.018	No
Executive Way to Towne Centre Dr.	6	Prime Arterial	60,000	42,350	0.706	C	44,660	0.744	C	0.039	No
Towne Centre Dr. to I-805[6]	8	Prime Arterial	70,000	65,880	0.941	E	70,860	1.012	F	0.071	YES

Table 5.3-8 (cont.)
NEAR TERM STREET SEGMENT OPERATIONS

Roadway Segment	Lanes	Classification	Capacity	Near Term Without Project			Near Term With Project			V/C Delta	Sig?[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Miramar Road											
I-805 to Nobel Dr.[6]	8	Prime Arterial	70,000	66,310	0.947	F	67,200	0.960	F	0.013	No
Nobel Dr. to Eastgate Mall[6]	7	Prime Arterial	65,000	67,830	1.044	F	68,900	1.060	F	0.016	No
Eastgate Mall to Miramar Mall	6	Prime Arterial	60,000	70,050	1.168	F	71,120	1.185	F	0.018	No
Miramar Mall to Camino Santa Fe	6	Prime Arterial	60,000	65,610	1.094	F	66,680	1.111	F	0.018	No
East of Camino Santa Fe	6	Prime Arterial	60,000	42,020	0.700	C	42,550	0.709	C	0.009	No
Camino Santa Fe											
Miramar Rd. to Carroll Rd.	6	Major Arterial	50,000	25,530	0.511	B	26,060	0.521	B	0.011	No
Regents Road											
Genesee Ave. to Eastgate Mall[6]	4	Collector	30,000	12,100	0.403	B	12,100	0.403	B	0.000	No
Eastgate Mall to Executive Dr.	4	Collector	30,000	11,060	0.369	B	11,060	0.369	B	0.000	No
Executive Dr. to La Jolla Village Drive	4	Collector	30,000	17,320	0.577	C	17,320	0.577	C	0.000	No
La Jolla Village Dr. to Nobel Dr.	5	Major Arterial	45,000	17,790	0.395	B	18,500	0.411	B	0.016	No
Nobel Dr. to Governor Dr.	4	Major Arterial	40,000	15,700	0.393	B	16,410	0.410	B	0.018	No
Towne Centre Drive											
North of Eastgate Mall	4	Major Arterial	40,000	12,060	0.302	A	12,240	0.306	A	0.005	No
Eastgate Mall to Executive Dr.	4	Major Arterial	40,000	20,400	0.510	B	20,760	0.519	B	0.009	No
Executive Dr. to La Jolla Village Dr.	4	Collector	30,000	21,820	0.727	D	22,180	0.739	D	0.012	No
La Jolla Village Dr. to UTC N. Dwy	4	Collector	30,000	14,070	0.352	C	17,100	0.428	C	0.076	No
UTC N. Dwy to UTC S. Dwy	4	Collector	30,000	14,360	0.359	C	17,390	0.435	C	0.076	No
UTC S. Dwy to Golden Haven Dr.	4	Collector	30,000	13,220	0.331	B	14,820	0.371	C	0.040	No
Golden Haven Dr. to Renaissance Dr.	4	Collector	30,000	12,520	0.417	B	13,410	0.447	B	0.030	No
Renaissance Dr. to Nobel Dr.	4	Collector	30,000	12,370	0.412	B	12,900	0.430	B	0.018	No

Table 5.3-8 (cont.)
NEAR TERM STREET SEGMENT OPERATIONS

Roadway Segment	Lanes	Classification	Capacity	Near Term Without Project			Near Term With Project			V/C Delta	Sig?[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Judicial Drive											
Eastgate Mall to Executive Dr.[6]	4	Major Arterial	40,000	8,000	0.200	A	8,000	0.200	A	0.000	No
Executive Dr. to Golden Haven Dr.[6]	4	Major Arterial	40,000	11,000	0.275	A	11,000	0.275	A	0.000	No
Golden Haven Dr. to Nobel Dr.[6]	4	Major Arterial	40,000	14,000	0.350	A	14,360	0.359	A	0.009	No
Eastgate Mall											
Regents Rd. to Genesee Ave.	2	Collector	15,000	14,640	0.976	E	14,730	0.982	E	0.006	No
Genesee Ave. to Towne Centre Dr.	4	Major Arterial	40,000	14,240	0.356	A	14,330	0.358	A	0.002	No
Towne Centre Dr. to Judicial Dr.	4	Collector	30,000	12,630	0.421	B	12,720	0.424	B	0.003	No
Judicial Dr. to I-805	3	Collector	15,000	10,470	0.698	D	10,470	0.698	D	0.000	No
I-805. to Miramar Rd.[6]	4	Collector	30,000	15,140	0.505	C	15,140	0.505	C	0.000	No
Executive Drive											
Regents Rd. to Genesee Ave.	4	Collector	30,000	6,070	0.202	A	6,250	0.208	A	0.006	No
Genesee Ave. to Executive Way	4	Collector	30,000	11,140	0.371	B	11,850	0.395	B	0.024	No
Executive Way to Towne Centre Dr.	4	Collector	30,000	6,760	0.225	A	7,120	0.237	A	0.012	No
Towne Centre Dr. to Judicial Dr.[6]	4	Major Arterial	40,000	4,570	0.114	A	4,930	0.123	A	0.009	No
Nobel Drive											
Villa La Jolla Dr. to I–5	6	Major Arterial	50,000	26,180	0.524	B	26,540	0.531	B	0.007	No
I–5 to Lebon Dr.	6	Major Arterial	50,000	23,990	0.480	B	25,590	0.512	B	0.032	No
Lebon Dr. to Regents Rd.[6]	6	Major Arterial	50,000	26,410	0.528	B	28,190	0.564	C	0.036	No
Regents Rd. to Genesee Ave.	6	Major Arterial	50,000	28,500	0.570	C	32,060	0.641	C	0.071	No
Genesee Ave. to Lombard Pl.[6]	6	Prime Arterial	60,000	23,310	0.389	A	27,050	0.451	B	0.062	No
Lombard Pl. to Towne Centre Dr.[6]	6	Prime Arterial	60,000	19,690	0.328	A	20,400	0.340	A	0.012	No
Towne Centre Dr. to Judicial Dr.	6	Prime Arterial	60,000	15,040	0.251	A	16,290	0.272	A	0.021	No
Judicial Dr. to I-805	6	Prime Arterial	60,000	23,650	0.394	A	25,070	0.418	B	0.024	No
I-805 to Miramar Rd.	4	Major Arterial	40,000	22,620	0.566	C	22,800	0.570	C	0.004	No

Table 5.3-8 (cont.)
NEAR TERM STREET SEGMENT OPERATIONS

Roadway Segment	Lanes	Classification	Capacity	Near Term Without Project			Near Term With Project			V/C Delta	Sig?[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Golden Haven Drive											
Towne Centre Drive to Renaissance Ave.	4	Major Arterial	40,000	5,610	0.140	A	6,320	0.158	A	0.018	No
Renaissance Ave. to Judicial Dr.	4	Major Arterial	40,000	5,920	0.148	A	6,630	0.166	A	0.018	No
Campus Point Drive											
North of Genesee Ave.	3	Collector	15,000	23,820	1.588	F	23,910	1.594	F	0.006	No
South of Genesee Ave.	4	Collector	30,000	14,560	0.485	C	14,650	0.488	C	0.003	No
Executive Way											
Executive Dr. to La Jolla Village Dr.	4	Collector	30,000	8,130	0.271	A	9,200	0.307	A	0.036	No
Lebon Drive											
La Jolla Village Dr. to Nobel Dr.	5	Collector	35,000	14,460	0.413	B	14,460	0.413	B	0.000	No
Governor Drive											
West of Regents Rd.	4	Collector	30,000	8,180	0.273	A	8,270	0.276	A	0.003	No
Regents Rd. to Genesee Ave.	4	Major Arterial	40,000	18,930	0.473	B	19,110	0.478	B	0.005	No
Genesee Ave. to Gullstrand St.	4	Collector	30,000	23,250	0.775	D	23,520	0.784	D	0.009	No
Gullstrand St. to I–805	4	Collector	30,000	21,980	0.733	D	22,070	0.736	D	0.003	No

Source: LLG 2007

1 Capacity based on roadway classification operating at LOS E.

2 Average Daily Traffic.

3 Volume to Capacity.

4 Level of Service.

5 Sig? = Significant project impact based on Significance Criteria.

6 Planned roadway improvements in the near term (with and without project scenarios).

Table 5.3-9a
HORIZON YEAR STREET SEGMENT OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Roadway Segment	Lanes	Classification	Capacity	Horizon Year Without Project			Horizon Year With Project			V/C Delta	Sig[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Genesee Avenue											
West of I-5	6	Prime Arterial	60,000	57,040	0.951	E	57,220	0.954	E	0.003	No
I-5 to Campus Point Dr.	6	Major Arterial	50,000	47,570	0.951	E	48,100	0.962	E	0.011	No
Campus Point Dr. to Regents Rd.	6	Major Arterial	50,000	42,000	0.840	D	42,710	0.854	D	0.014	No
Regents Rd. to Eastgate Mall	6	Major Arterial	50,000	38,000	0.760	C	38,710	0.774	C	0.014	No
Eastgate Mall to Executive Dr.	6	Major Arterial	50,000	36,070	0.721	C	36,960	0.739	C	0.018	No
Executive Dr. to Executive Sq.	6	Major Arterial	50,000	37,500	0.750	C	37,860	0.757	C	0.007	No
Executive Sq. to La Jolla Village Dr.	6	Major Arterial	50,000	39,050	0.781	C	39,580	0.792	C	0.011	No
La Jolla Village Dr. to Esplanade Ct.	6	Major Arterial	50,000	34,670	0.693	C	36,630	0.733	C	0.039	No
Esplanade Ct. to Nobel Dr.	6	Major Arterial	50,000	33,890	0.678	C	35,670	0.713	C	0.036	No
Nobel Dr. to Decoro St.	4	Major Arterial	40,000	39,230	0.981	E	41,190	1.030	F	0.049	YES
Decoro St. to Governor Dr.	4	Major Arterial	40,000	32,960	0.824	D	34,830	0.871	D	0.047	No
Governor Dr. to SR 52	4	Major Arterial	40,000	41,500	1.038	F	42,920	1.073	F	0.035	YES
South of SR 52	4	Major Arterial	40,000	35,100	0.878	E	35,990	0.900	E	0.022	No
La Jolla Village Drive											
West of I-5	7	Prime Arterial	65,000	74,360	1.144	F	75,250	1.158	F	0.014	No
I-5 to Lebon Dr.[6]	7	Prime Arterial	65,000	61,460	0.946	E	63,240	0.973	E	0.027	YES
Lebon Dr. to Regents Rd.	6	Prime Arterial	60,000	56,650	0.944	E	58,430	0.974	E	0.030	YES
Regents Rd. to Genesee Ave.	6	Prime Arterial	60,000	46,660	0.778	C	49,150	0.819	C	0.042	No
Genesee Ave. to Executive Way	6	Prime Arterial	60,000	63,390	1.057	F	64,460	1.074	F	0.018	No
Executive Way to Towne Centre Dr.	6	Prime Arterial	60,000	54,220	0.904	D	56,530	0.942	E	0.039	YES
Towne Centre Dr. to I-805[6]	9	Prime Arterial	75,000	69,030	0.920	E	74,010	0.987	E	0.066	YES
Miramar Road											
I-805 to Nobel Dr.	8	Prime Arterial	70,000	73,720	1.053	F	74,610	1.066	F	0.013	No
Nobel Dr. to Eastgate Mall	7	Prime Arterial	65,000	75,760	1.166	F	76,830	1.182	F	0.016	No
Eastgate Mall to Miramar Mall	6	Prime Arterial	60,000	82,170	1.370	F	83,240	1.387	F	0.018	No
Miramar Mall to Camino Santa Fe	6	Prime Arterial	60,000	79,860	1.331	F	80,930	1.349	F	0.018	No
East of Camino Santa Fe	6	Prime Arterial	60,000	51,220	0.854	D	51,750	0.863	D	0.009	No

Table 5.3-9a (cont.)
HORIZON YEAR STREET SEGMENT OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Roadway Segment	Lanes	Classification	Capacity	Horizon Year Without Project			Horizon Year With Project			V/C Delta	Sig[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Camino Santa Fe											
Miramar Rd. to Carroll Rd.	6	Major Arterial	50,000	42,940	0.859	D	43,470	0.869	D	0.011	No
Regents Road											
Genesee Ave. to Eastgate Mall	4	Collector	30,000	12,770	0.426	B	12,770	0.426	B	0.000	No
Eastgate Mall to Executive Dr.	4	Collector	30,000	11,700	0.390	B	11,700	0.390	B	0.000	No
Executive Dr. to La Jolla Village Drive	4	Collector	30,000	18,450	0.615	C	18,450	0.615	C	0.000	No
La Jolla Village Dr. to Nobel Dr.	5	Major Arterial	45,000	20,820	0.463	B	21,530	0.478	B	0.016	No
Nobel Dr. to Governor Dr.	4	Major Arterial	40,000	24,740	0.619	C	25,450	0.636	C	0.018	No
Towne Centre Drive											
North of Eastgate Mall	4	Major Arterial	40,000	17,770	0.444	B	17,950	0.449	B	0.005	No
Eastgate Mall to Executive Dr.	4	Major Arterial	40,000	22,860	0.572	C	23,220	0.581	C	0.009	No
Executive Dr. to La Jolla Village Dr.	4	Collector	30,000	26,840	0.895	E	27,200	0.907	E	0.012	No
La Jolla Village Dr. to UTC N. Dwy	4	Major Arterial	40,000	16,620	0.416	B	19,650	0.491	B	0.076	No
UTC N. Dwy to UTC S. Dwy	4	Major Arterial	40,000	17,520	0.438	B	20,550	0.514	B	0.076	No
UTC S. Dwy to Golden Haven Dr.	4	Major Arterial	40,000	14,220	0.356	A	15,820	0.396	B	0.040	No
Golden Haven Dr. to Renaissance Dr.	4	Collector	30,000	13,860	0.462	B	14,750	0.492	C	0.030	No
Renaissance Dr. to Nobel Dr.	4	Collector	30,000	15,760	0.525	C	16,290	0.543	C	0.018	No
Judicial Drive											
Eastgate Mall to Executive Dr.	4	Major Arterial	40,000	11,670	0.292	A	11,670	0.292	A	0.000	No
Executive Dr. to Golden Haven Dr.	4	Major Arterial	40,000	12,840	0.321	A	12,840	0.321	A	0.000	No
Golden Haven Dr. to Nobel Dr.	4	Major Arterial	40,000	16,600	0.415	B	16,960	0.424	B	0.009	No

Table 5.3-9a (cont.)
HORIZON YEAR STREET SEGMENT OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Roadway Segment	Lanes	Classification	Capacity	Horizon Year Without Project			Horizon Year With Project			V/C Delta	Sig[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Eastgate Mall											
Regents Rd. to Genesee Ave.	2	Collector	15,000	16,070	1.071	F	16,160	1.077	F	0.006	No
Genesee Ave. to Towne Centre Dr.	4	Major Arterial	40,000	15,950	0.399	B	16,040	0.401	B	0.002	No
Towne Centre Dr. to Judicial Dr.	4	Collector	30,000	14,660	0.489	C	14,750	0.492	C	0.003	No
Judicial Dr. to I-805	3	Collector	15,000	11,120	0.741	D	11,120	0.741	D	0.000	No
I-805. to Miramar Rd.	4	Collector	30,000	16,820	0.561	C	16,820	0.561	C	0.000	No
Executive Drive											
Regents Rd. to Genesee Ave.	4	Collector	30,000	8,490	0.283	A	8,670	0.289	A	0.006	No
Genesee Ave. to Executive Way	4	Collector	30,000	17,610	0.587	C	18,320	0.611	C	0.024	No
Executive Way to Towne Centre Dr.	4	Collector	30,000	8,220	0.274	A	8,580	0.286	A	0.012	No
Towne Centre Dr. to Judicial Dr.	4	Major Arterial	40,000	10,070	0.252	A	10,430	0.261	A	0.009	No
Nobel Drive											
Villa La Jolla Dr. to I–5	6	Major Arterial	50,000	26,800	0.536	B	27,160	0.543	B	0.007	No
I–5 to Lebon Dr.	6	Major Arterial	50,000	25,500	0.510	B	27,100	0.542	B	0.032	No
Lebon Dr. to Regents Rd.	6	Major Arterial	50,000	27,800	0.556	B	29,580	0.592	C	0.036	No
Regents Rd. to Genesee Ave.	6	Major Arterial	50,000	29,900	0.598	C	33,460	0.669	C	0.071	No
Genesee Ave. to Lombard Pl.	6	Prime Arterial	60,000	28,920	0.482	B	32,660	0.544	B	0.062	No
Lombard Pl. to Towne Centre Dr.	6	Prime Arterial	60,000	22,520	0.375	A	23,230	0.387	A	0.012	No
Towne Centre Dr. to Judicial Dr.	6	Prime Arterial	60,000	16,140	0.269	A	17,390	0.290	A	0.021	No
Judicial Dr. to I-805	6	Prime Arterial	60,000	35,860	0.598	C	37,280	0.621	C	0.024	No
I-805 to Miramar Rd.	4	Major Arterial	40,000	39,640	0.991	E	39,820	0.996	E	0.005	No
Golden Haven Drive											
Towne Centre Drive to Renaissance Ave.	4	Major Arterial	40,000	6,530	0.163	A	7,240	0.181	A	0.018	No
Renaissance Ave. to Judicial Dr.	4	Major Arterial	40,000	7,530	0.188	A	8,240	0.206	A	0.018	No

Table 5.3-9a (cont.)
HORIZON YEAR STREET SEGMENT OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Roadway Segment	Lanes	Classification	Capacity	Horizon Year Without Project			Horizon Year With Project			V/C Delta	Sig[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Campus Point Drive											
North of Genesee Ave.	3	Collector	15,000	25,670	1.711	F	25,760	1.717	F	0.006	No
South of Genesee Ave.	4	Collector	30,000	20,570	0.686	D	20,660	0.689	D	0.003	No
Executive Way											
Executive Dr. to La Jolla Village Dr.	4	Collector	30,000	8,580	0.286	A	9,650	0.322	A	0.036	No
Lebon Drive											
La Jolla Village Dr. to Nobel Dr.	5	Collector	35,000	17,170	0.491	B	17,170	0.491	B	0.000	No
Governor Drive											
West of Regents Rd.	4	Collector	30,000	8,640	0.288	A	8,730	0.291	A	0.003	No
Regents Rd. to Genesee Ave.	4	Major Arterial	40,000	21,040	0.526	C	21,220	0.531	C	0.004	No
Genesee Ave. to Gullstrand St.	4	Collector	30,000	27,140	0.905	E	27,410	0.914	E	0.009	No
Gullstrand St. to I–805	4	Collector	30,000	23,640	0.788	D	23,730	0.791	D	0.003	No

Source: LLG 2007

1 Capacity based on roadway classification operating at LOS E.

2 Average Daily Traffic.

3 Volume to Capacity.

4 Level of Service.

5 Sig = Significant project impact based on Significance Criteria.

Near-term mitigation assumed in place for the analysis. However, a significant impact is expected without this mitigation in place as well. It should be noted that the applicant does not propose mitigation due to planning, community concern, and public policy reasons.

Table 5.3-9b
HORIZON YEAR STREET SEGMENT OPERATIONS
WITH GENESEE AVENUE WIDENING

Roadway Segment	Lanes	Classification	Capacity	Horizon Year Without Project			Horizon Year With Project			V/C Delta	Sig[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS		
Genesee Avenue											
Nobel Dr. to Decoro St.	6	Major Arterial	50,000	39,230	0.785	C	41,190	0.824	D	0.049	No
Decoro St. to Governor Dr.	6	Major Arterial	50,000	32,960	0.659	C	34,830	0.697	C	0.047	No
Governor Dr. to SR 52	6	Major Arterial	50,000	41,500	0.830	D	42,920	0.858	D	0.035	No
South of SR 52	4	Major Arterial	40,000	35,100	0.878	E	35,990	0.988	E	0.022	No

Source: LLG 2007

1 Capacity based on roadway classification operating at LOS E.

2 Average Daily Traffic.

3 Volume to Capacity.

4 Level of Service.

5 Sig = Significant project impact based on Significance Criteria.

Near-term mitigation assumed in place for the analysis. However, a significant impact is expected without this mitigation in place as well. It should be noted that the applicant does not propose mitigation due to planning, community concern, and public policy reasons.

Table 5.3-10
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Peak Hour	Near Term Without Project		Near Term With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
GENESEE AVENUE							
Genesee Avenue/I-5 SB Ramps	AM	67.560.5	E	67.861.0	E	0.50.3	No
	PM	61.733.5	~~C~~E	62.834.3	~~C~~E	0.81.1	No
Genesee Avenue/I-5 NB Ramps	AM	78.648.7	~~D~~E	78.749.2	~~D~~E	0.50.1	No
	PM	61.828.0	~~D~~E	62.029.7	~~D~~E	1.70.2	No
Genesee Avenue/Scripps Hospital[4]	AM	23.3	C	23.3	C	0.0	No
	PM	20.1	C	21.0	B	0.9	No
Genesee Avenue/Campus Point Drive[4]	AM	105.9	F	107.0	F	1.1	No
	PM	62.2	E	62.6	E	0.4	No
Genesee Avenue/Regents Road[4]	AM	16.0	B	16.0	B	0.0	No
	PM	9.7	A	9.8	A	0.1	No
EASTGATE MALL							
Eastgate Mall/Regents Road[4]	AM	5.5	A	5.5	A	0.0	No
	PM	6.8	A	6.8	A	0.0	No
Eastgate Mall/Genesee Avenue[4]	AM	36.7	D	36.7	D	0.0	No
	PM	25.8	C	25.9	C	0.1	No
Eastgate Mall/Towne Centre Drive	AM	21.3	C	21.3	C	0.0	No
	PM	23.3	C	23.5	C	0.2	No
Eastgate Mall/Judicial Drive	AM	15.3	B	15.3	B	0.0	No
	PM	16.6	B	16.6	B	0.0	No
EXECUTIVE DRIVE							
Executive Drive/Genesee Avenue	AM	26.8	C	27.2	C	0.4	No
	PM	46.0	D	47.9	D	1.9	No
Executive Drive/Executive Way	AM	37.9	D	38.7	D	0.8	No
	PM	25.0	C	26.5	C	1.5	No
Executive Drive/Towne Centre Drive	AM	22.7	C	23.6	C	0.9	No
	PM	64.6	E	65.3	E	0.7	No
EXECUTIVE SQUARE							
Executive Square/Genesee Avenue	AM	40.6	D	40.7	D	0.1	No
	PM	22.8	C	26.0	C	3.2	No
LA JOLLA VILLAGE DRIVE							
La Jolla Village Drive/Villa La Jolla Drive[4]	AM	43.4	D	43.5	D	0.1	No
	PM	44.1	D	44.4	D	0.3	No
La Jolla Village Drive/I–5 SB Ramps	AM	20.6	C	21.0	C	0.4	No
	PM	29.4	C	29.9	C	0.5	No
La Jolla Village Drive/I–5 NB Ramps	AM	15.6	B	15.9	B	0.3	No
	PM	7.6	A	7.8	A	0.2	No
La Jolla Village Drive/Lebon Drive	AM	36.6	D	37.1	D	0.5	No
	PM	24.3	C	25.0	C	0.7	No
La Jolla Village Drive/Regents Road[4]	AM	52.8	D	53.7	D	0.9	No
	PM	77.2	E	79.3	F	2.1	**YES**
La Jolla Village Drive/Genesee Avenue	AM	99.3	F	100.8	F	1.5	No
	PM	67.6	E	71.1	E	3.5	**YES**
La Jolla Village Drive/Towne Centre Drive	AM	82.7	F	85.5	F	2.8	**YES**
	PM	75.4	E	79.7	E	4.3	**YES**
La Jolla Village Drive/I–805 SB Ramps[4]	AM	21.6	C	24.5	C	2.9	No
	PM	7.7	A	9.6	A	1.9	No

Table 5.3-10 (cont.)
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Peak Hour	Near Term Without Project		Near Term With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
MIRAMAR ROAD							
Miramar Road/I–805 NB Ramps[4]	AM	9.7	A	10.1	B	0.4	No
	PM	5.7	A	6.8	A	1.1	No
Miramar Road/Nobel Drive[4]	AM	57.2	E	57.2	E	0.0	No
	PM	39.0	D	39.7	D	0.7	No
Miramar Road/Eastgate Mall[4]	AM	8.0	A	8.6	A	0.6	No
	PM	24.2	C	25.7	C	1.5	No
Miramar Road/Miramar Mall	AM	7.8	A	7.8	A	0.0	No
	PM	7.2	A	8.2	A	1.0	No
Miramar Road/Miramar Place	AM	12.9	B	13.0	B	0.1	No
	PM	32.1	C	33.2	C	1.1	No
Miramar Road/Camino Santa Fe	AM	135.8	F	136.9	F	1.1	No
	PM	73.7	E	74.3	E	0.6	No
PROJECT DRIVEWAYS							
La Jolla Village Drive/Executive Way	AM	29.6	C	33.3	C	3.7	No
	PM	46.1	D	47.4	D	1.3	No
Genesee Avenue/Esplanade Court	AM	30.1	C	31.6	C	2.5	No
	PM	26.7	C	32.2	C	5.5	No
Nobel Drive/Lombard Place (not signalized)[4]	AM	1.9	A	4.1	A	2.2	No
	PM	10.5	B	>50.1	F	> 2.0	YES
Towne Centre Dr./North UTC dwy (not sig.)	AM	>50.1	F	>50.1	F	> 2.0	YES
	PM	46.3	E	>50.1	F	> 2.0	YES
Towne Centre Dr./South UTC dwy (not sig.)	AM	>50.1	F	>50.1	F	> 2.0	YES
	PM	43.0	E	>50.1	F	> 2.0	YES
PLAZA DE PALMAS							
Plaza de Palmas/Mahaila Ave./Regents Rd.	AM	27.9	C	29.2	C	1.3	No
	PM	17.7	B	25.6	C	7.9	No
GOLDEN HAVEN DRIVE							
Golden Haven Drive/Towne Centre Drive	AM	7.2	A	7.7	A	0.5	No
	PM	11.7	B	12.4	B	0.7	No
Golden Haven Drive/Judicial Drive	AM	14.1	B	14.6	B	0.5	No
	PM	8.8	A	9.5	A	0.7	No
RENAISSANCE AVENUE							
Renaissance Avenue/Towne Centre Drive	AM	10.2	B	10.5	B	0.3	No
	PM	8.2	A	9.1	A	0.9	No
NOBEL DRIVE							
Nobel Drive/Villa La Jolla Drive	AM	19.7	B	19.9	B	0.2	No
	PM	58.2	E	58.7	E	0.5	No
Nobel Drive/I–5 SB Ramp	AM	4.3	A	4.4	A	0.1	No
	PM	21.8	C	22.3	C	0.5	No
Nobel Drive/I–5 NB Ramp	AM	10.9	B	10.9	B	0.0	No
	PM	17.9	B	18.2	B	0.3	No
Nobel Drive/Caminito Plaza Centro	AM	9.8	A	9.9	A	0.1	No
	PM	9.8	A	9.8	A	0.0	No
Nobel Drive/Lebon Drive[4]	AM	34.6	C	34.9	C	0.3	No
	PM	40.4	D	40.8	D	0.4	No
NOBEL DRIVE (cont.)							
Nobel Drive/Regents Road[4]	AM	44.6	D	44.8	D	0.2	No
	PM	45.0	D	47.2	D	2.2	No

Table 5.3-10 (cont.)
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Peak Hour	Near Term Without Project		Near Term With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
Nobel Dr./Costa Verde Blvd./Cargill Ave.	AM	43.6	D	43.9	D	0.3	No
	PM	44.3	D	45.4	D	1.1	No
Nobel Drive/Genesee Avenue[4]	AM	49.8	D	54.0	D	4.2	No
	PM	46.7	D	54.3	D	7.6	No
Nobel Drive/Towne Centre Drive	AM	22.0	C	22.1	C	0.1	No
	PM	29.2	C	29.3	C	0.1	No
Nobel Drive/Shoreline Drive	AM	15.9	B	16.0	B	0.1	No
	PM	13.0	B	13.1	B	0.1	No
Nobel Drive/Judicial Drive	AM	10.9	B	11.0	B	0.1	No
	PM	11.0	B	11.9	B	0.9	No
Nobel Drive/I–805 SB Ramp	AM	2.3	A	2.4	A	0.1	No
	PM	8.8	A	9.1	A	0.3	No
Nobel Drive/I–805 NB Ramp	AM	14.2	B	14.2	B	0.0	No
	PM	13.0	B	13.7	B	0.7	No
DECORO STREET							
Decoro Street/Genesee Avenue	AM	44.6	D	48.4	D	3.8	No
	PM	66.1	E	67.5	E	1.4	No
UNIVERSITY CITY HIGH SCHOOL							
University City High School/Genesee Avenue	AM	38.9	D	40.1	D	1.2	No
	PM	8.7	A	8.9	A	0.2	No
GOVERNOR DRIVE							
Governor Drive/Regents Road	AM	38.8	D	39.1	D	0.3	No
	PM	57.2	E	58.7	E	1.5	No
Governor Drive/Genesee Avenue	AM	78.4	E	80.3	F	1.9	No
	PM	103.2	F	108.2	F	5.0	YES
Governor Drive/Agee Street	AM	9.5	A	9.5	A	0.0	No
	PM	10.4	B	10.4	B	0.0	No
Governor Drive/Gullstrand Street	AM	9.6	A	9.7	A	0.1	No
	PM	12.2	B	12.3	B	0.1	No
Governor Drive/Greenwich Street	AM	19.0	B	19.4	B	0.4	No
	PM	6.1	A	6.1	A	0.0	No
SR 52							
SR 52 WB Ramps/Genesee Avenue	AM	4.5	A	4.7	A	0.2	No
	PM	24.7	D	27.0	D	2.3	No
SR 52 EB Ramps/Genesee Avenue	AM	59.7	E	61.4	E	1.7	No
	PM	64.6	E	64.8	E	0.2	No
APPLETON STREET / LEHRER STREET							
Appleton St./Lehrer Dr./Genesee Ave.	AM	76.5	E	78.1	E	1.6	No
	PM	24.2	C	26.8	C	2.6	No

Source: LLG 2007 (updated in 2008).
1 *Average delay expressed in seconds per vehicle.*
2 Level of Service.
3 Sig = Significant project impacts based on Significance Criteria.
4 Planned FBA roadway improvements for the Near-Term (with and without project scenarios).

SIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 < 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
> 80.1	F

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 < 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
> 50.1	F

Table 5.3-11a
HORIZON YEAR INTERSECTION OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
GENESEE AVENUE							
Genesee Avenue/I-5 SB Ramps	AM	~~94.0~~87.8	~~F~~	~~88.2~~94.5	F	~~0.4~~0.5	No
	PM	~~68.9~~108.7	~~FE~~	~~109.4~~69.6	~~FE~~	0.7	No
Genesee Avenue/I-5 NB Ramps	AM	~~90.3~~86.4	~~F~~	~~86.9~~90.4	F	~~0.5~~0.1	No
	PM	~~95.4~~71.9	~~EF~~	~~73.2~~95.4	~~EF~~	~~1.3~~0.0	No
Genesee Avenue/Scripps Hospital[4]	AM	34.9	C	35.6	D	0.7	No
	PM	30.3	C	30.4	C	0.1	No
Genesee Avenue/Campus Point Drive[4]	AM	108.0	F	108.1	F	0.1	No
	PM	72.0	E	72.8	E	0.8	No
Genesee Avenue/Regents Road[4]	AM	18.4	B	18.6	B	0.2	No
	PM	13.7	B	13.7	B	0.0	No
EASTGATE MALL							
Eastgate Mall/Regents Road[4]	AM	5.6	A	5.6	A	0.0	No
	PM	6.9	A	6.9	A	0.0	No
Eastgate Mall/Genesee Avenue[4]	AM	44.9	D	45.2	D	0.3	No
	PM	26.9	C	27.4	C	0.5	No
Eastgate Mall/Towne Centre Drive	AM	23.2	C	23.3	C	0.1	No
	PM	30.8	C	31.5	C	0.7	No
Eastgate Mall/Judicial Drive	AM	17.6	B	17.6	B	0.0	No
	PM	17.9	B	18.0	B	0.1	No
EXECUTIVE DRIVE							
Executive Drive/Genesee Avenue	AM	34.6	C	34.7	C	0.1	No
	PM	61.8	E	62.6	E	0.8	No
Executive Drive/Executive Way	AM	38.6	D	39.2	D	0.6	No
	PM	25.2	C	26.5	C	1.3	No
Executive Drive/Towne Centre Drive	AM	41.6	D	42.0	D	0.4	No
	PM	97.2	F	97.4	F	0.2	No
EXECUTIVE SQUARE							
Executive Square/Genesee Avenue	AM	47.4	D	49.0	D	1.6	No
	PM	25.3	C	28.6	C	3.3	No
LA JOLLA VILLAGE DRIVE							
La Jolla Village Drive/Villa La Jolla Drive[4]	AM	65.5	E	66.4	E	0.9	No
	PM	70.3	E	70.9	E	0.6	No
La Jolla Village Drive/I–5 SB Ramps	AM	35.5	D	35.8	D	0.3	No
	PM	56.4	E	57.6	E	1.2	No
La Jolla Village Drive/I–5 NB Ramps	AM	21.8	C	22.4	C	0.6	No
	PM	10.2	B	11.6	B	1.4	No
La Jolla Village Drive/Lebon Drive[4]	AM	56.6	E	57.8	E	1.2	No
	PM	27.6	C	28.2	C	0.6	No
La Jolla Village Drive/Regents Road[4, 5]	AM	58.8	E	60.5	E	1.7	No
	PM	95.7	F	96.2	F	0.5	No
La Jolla Village Drive/Genesee Avenue[5]	AM	99.9	F	100.9	F	1.0	No
	PM	80.1	F	80.2	F	0.1	No
La Jolla Village Drive/Towne Centre Drive[5]	AM	158.5	F	159.8	F	1.3	No
	PM	142.2	F	142.3	F	0.1	No

Table 5.3-11a (cont.)
HORIZON YEAR INTERSECTION OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
LA JOLLA VILLAGE DRIVE (Cont.)							
La Jolla Village Drive/I–805 SB Ramps[4]	AM	70.2	E	73.3	E	3.1	YES
	PM	38.6	D	45.7	D	7.1	No
MIRAMAR ROAD							
Miramar Road/I–805 NB Ramps[4]	AM	20.3	C	20.9	C	0.6	No
	PM	10.0	A	11.6	B	1.6	No
Miramar Road/Nobel Drive[4]	AM	66.0	E	66.1	E	0.1	No
	PM	41.2	D	41.6	D	0.4	No
Miramar Road/Eastgate Mall[4]	AM	12.8	B	16.8	B	4.0	No
	PM	60.5	E	60.9	E	0.4	No
Miramar Road/Miramar Mall	AM	69.8	E	69.9	E	0.1	No
	PM	121.3	F	122.1	F	0.8	No
Miramar Road/Miramar Place	AM	25.2	C	26.4	C	1.2	No
	PM	44.5	D	45.8	D	1.3	No
Miramar Road/Camino Santa Fe	AM	161.2	F	163.0	F	1.8	No
	PM	137.3	F	138.7	F	1.4	No
PROJECT DRIVEWAYS							
La Jolla Village Drive/Executive Way	AM	65.1	E	70.2	E	5.1	YES
	PM	74.8	E	77.7	E	2.9	YES
Genesee Avenue/Esplanade Court	AM	30.8	C	39.2	D	8.4	No
	PM	30.9	C	31.5	C	0.6	No
Nobel Drive/Lombard Place[4, 5]	AM	10.5	B	11.5	B	1.0	No
	PM	13.6	B	19.6	B	6.0	No
Towne Centre Dr./North UTC dwy (not sig.)[5]	AM	25.8	D	30.4	D	4.6	No
	PM	3.2	A	6.9	A	3.7	No
Towne Centre Dr./South UTC dwy[5]	AM	31.6	C	33.7	C	2.1	No
	PM	24.3	C	33.5	C	9.2	No
PLAZA DE PALMAS							
Plaza de Palmas/Mahaila Avenue/Regents Road	AM	35.6	D	36.7	D	1.1	No
	PM	28.6	C	31.1	C	2.5	No
GOLDEN HAVEN DRIVE							
Golden Haven Drive/Towne Centre Drive	AM	18.2	B	20.3	C	2.1	No
	PM	20.5	B	26.1	C	5.6	No
Golden Haven Drive/Judicial Drive	AM	17.4	B	17.4	B	0.0	No
	PM	9.3	A	9.6	A	0.3	No
RENAISSANCE AVENUE							
Renaissance Avenue/Towne Centre Drive	AM	10.3	B	10.6	B	0.3	No
	PM	8.7	A	9.1	A	0.4	No
NOBEL DRIVE							
Nobel Drive/Villa La Jolla Drive	AM	20.6	C	20.8	C	0.2	No
	PM	58.6	E	59.2	E	0.6	No
Nobel Drive/I–5 SB Ramp	AM	5.9	A	6.0	A	0.1	No
	PM	40.3	D	45.0	D	4.7	No
Nobel Drive/I–5 NB Ramp	AM	12.5	B	12.5	B	0.0	No
	PM	21.7	C	22.8	C	1.1	No

Table 5.3-11a (cont.)
HORIZON YEAR INTERSECTION OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
NOBEL DRIVE (Cont.)							
Nobel Drive/Caminito Plaza Centro	AM	11.0	B	11.1	B	0.1	No
	PM	11.1	B	11.1	B	0.0	No
Nobel Drive/Lebon Drive[4]	AM	42.8	D	44.3	D	1.5	No
	PM	57.3	E	57.6	E	0.3	No
Nobel Drive/Regents Road[4]	AM	46.5	D	47.7	D	1.2	No
	PM	51.4	D	55.0	D	3.6	No
Nobel Drive/Costa Verde Blvd. / Cargill Ave.	AM	46.1	D	46.7	D	0.6	No
	PM	45.6	D	48.2	D	2.6	No
Nobel Drive/Genesee Avenue[5]	AM	50.6	D	51.5	D	0.9	No
	PM	58.5	E	65.7	E	7.2	YES
Nobel Drive/Towne Centre Drive	AM	25.4	C	25.4	C	0.0	No
	PM	38.7	D	40.8	D	2.1	No
Nobel Drive/Shoreline Drive	AM	16.3	B	16.3	B	0.0	No
	PM	13.3	B	13.4	B	0.1	No
Nobel Drive/Judicial Drive	AM	11.4	B	11.5	B	0.1	No
	PM	11.7	B	12.7	B	1.0	No
Nobel Drive/I–805 SB Ramp	AM	3.5	A	3.5	A	0.0	No
	PM	33.3	C	33.9	C	0.6	No
Nobel Drive/I–805 NB Ramp	AM	29.2	C	29.2	C	0.0	No
	PM	21.2	C	23.0	C	1.8	No
DECORO STREET							
Decoro Street/Genesee Avenue	AM	65.8	E	66.1	E	0.3	No
	PM	82.3	F	91.9	F	9.6	YES
UNIVERSITY CITY HIGH SCHOOL							
University City High School/Genesee Avenue	AM	58.4	E	59.9	E	1.5	No
	PM	9.3	A	14.4	B	5.1	No
GOVERNOR DRIVE							
Governor Drive/Regents Road	AM	86.1	F	86.6	F	0.5	No
	PM	101.1	F	102.6	F	1.5	No
Governor Drive/Genesee Avenue[5]	AM	122.8	F	123.9	F	1.1	No
	PM	113.0	F	114.1	F	1.1	No
Governor Drive/Agee Street	AM	10.0	B	10.0	B	0.0	No
	PM	11.1	B	11.3	B	0.2	No
Governor Drive/Gullstrand Street	AM	12.7	B	12.7	B	0.0	No
	PM	17.2	B	17.4	B	0.2	No
Governor Drive/Greenwich Street	AM	25.9	C	25.9	C	0.0	No
	PM	6.5	A	6.5	A	0.0	No
SR 52							
SR 52 WB Ramps/Genesee Avenue	AM	3.3	A	3.3	A	0.0	No
	PM	87.1	F	87.6	F	0.5	No
SR 52 EB Ramps/Genesee Avenue	AM	98.8	F	100.1	F	1.3	No
	PM	107.9	F	109.7	F	1.8	No

Table 5.3-11a (cont.)
HORIZON YEAR INTERSECTION OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
APPLETON STREET / LEHRER STREET							
Appleton Street/Lehrer Drive/Genesee Avenue	AM	85.0	F	86.1	F	1.1	No
	PM	42.5	D	44.2	D	1.7	No

Source: LLG 2007 (updated in 2008).
1 Average delay expressed in seconds per vehicle.
2 Level of Service.
3 Sig = Significant project impacts based on Significance Criteria.
4 Planned FBA roadway improvements for the Near-Term (with and without *project scenarios).*

SIGNALIZED DELAY/LOS THRESHOLDS		UNSIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
> 80.1	F	> 50.1	F

Table 5.3-11b
HORIZON YEAR INTERSECTION OPERATIONS
WITH GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
GENESEE AVENUE							
Nobel Drive/Genesee Avenue[5]	AM	37.0	D	38.7	D	1.7	No
	PM	63.1	E	67.5	E	4.4	**YES**
Decoro Street/Genesee Avenue[4]	AM	18.8	B	19.2	B	0.4	No
	PM	29.8	C	33.8	C	4.0	No
University City High School/Genesee Avenue[4]	AM	31.5	C	31.7	C	0.2	No
	PM	7.2	A	7.2	A	0.0	No
Governor Drive/Genesee Avenue[4,5]	AM	75.9	E	76.5	E	0.6	No
	PM	61.9	E	63.3	E	1.4	No
SR 52 WB Ramps/Genesee Avenue[4]	AM	2.8	A	2.8	A	0.0	No
	PM	5.6	A	10.3	B	4.7	No

Source: LLG 2007
1 Average delay expressed in seconds per vehicle.
2 Level of Service.
3 Sig = Significant project impacts based on Significance Criteria.
4 Planned FBA roadway improvements for the Near-Term (with and without project scenarios).
5 Near-term mitigation assumed in place (with and without project scenarios).

SIGNALIZED DELAY/LOS THRESHOLDS		UNSIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
> 80.1	F	> 50.1	F

Freeway Segment Operations

Near-Term Conditions

Under the near term without project scenario, two of the nine freeway segments would operate at LOS D or better in ~~both the AM and~~the PM peak hour periods in the northbound direction (Table 5.3-12, *Near-Term Freeway Segment Operations*). With the addition of proposed project traffic, a significant impact would occur on the following two freeway segments:

I-805 between:

- Nobel Drive and Governor Drive, ~~northbound—PM peak hour and~~ southbound ~~AM and~~ PM peak ~~hour~~ periods
- Governor Drive and SR 52, ~~northbound—PM peak hour and~~ southbound ~~AM and~~ PM peak ~~hour~~ periods

Horizon Year Conditions

Under the horizon year without project scenario, two of nine freeway segments would operate at LOS D or better in ~~both the AM and~~the PM peak hour periods in the northbound direction (Table 5.3-13, *Horizon Year Freeway Segment Operations*). Under the horizon year with project scenario, a significant cumulative impact would occur on the following two freeway segments with or without the widening of Genesee Avenue:

I-805 between:

- Nobel Drive and Governor Drive, ~~northbound and~~ southbound—PM peak period
- Governor Drive and SR 52, ~~northbound and~~ southbound—PM peak ~~hour~~ period

Table 5.3-12
NEAR-TERM FREEWAY SEGMENT OPERATIONS

Freeway and Segment	Direction & Number of Lanes[1]		ADT[2]	Near Term Without Project				Near Term With Project				V/C Delta		Sig?	
				AM		PM		AM		PM					
				V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM	AM	PM
I–5															
I–805 to Genesee Ave.	NB Mainlines	4M	180,910	1.138	F(0)	0.836	D	1.139	F(0)	0.842	D	0.001	0.006	No	No
	SB Mainlines	4M	180,910	0.656	C	1.184	F(0)	0.658	C	1.191	F(0)	0.002	0.006	No	No
Genesee Ave. to La Jolla Village Dr.	NB Mainlines	4M	177,320	1.116	F(0)	0.820	D	1.117	F(0)	0.824	D	0.001	0.004	No	No
	SB Mainlines	4M	177,320	0.643	C	1.161	F(0)	0.644	C	1.165	F(0)	0.001	0.004	No	No
La Jolla Village Dr. to Gilman Dr.	NB Mainlines	4M	204,080	1.284	F(1)	0.944	E	1.287	F(1)	0.952	E	0.003	0.008	No	No
	SB Mainlines	4M	204,080	0.740	C	1.336	F(1)	0.742	C	1.344	F(1)	0.002	0.008	No	No
I–805															
I–5 to La Jolla Village Dr.	NB Mainlines	4M+1A	192,030	1.0543 ~~0.617~~	~~B~~F(0)	0.6420 ~~.837~~	~~D~~C	1.055 ~~0.619~~	~~B~~F(0)	0.651 ~~0.846~~	~~D~~C	0.002	0.009	No	No
	SB Mainlines	4M+1A	192,030	0.470 ~~1.007~~	F(0)~~B~~	0.970 ~~0.903~~	~~D~~E	0.473 ~~1.011~~	F(0)~~B~~	0.980 ~~0.913~~	~~D~~E	0.003	0.010	No	No
La Jolla Village Dr. to Nobel Dr.	NB Mainlines	4M+1A	193,400	1.061 ~~0.622~~	~~E~~F(0)	0.646 ~~0.843~~	~~D~~C	1.064 ~~0.621~~	~~E~~F(0)	0.657 ~~0.848~~	~~D~~C	0.003	0.011	No	No
	SB Mainlines	4M+1A	193,400	0.473 ~~1.015~~	F(0)~~B~~	0.977 ~~0.909~~	~~D~~E	0.476 ~~1.010~~	F(0)~~B~~	0.987 ~~0.913~~	~~D~~E	0.002	0.010	No	No
Nobel Dr. to Governor Dr.	NB Mainlines	4M+1A	220,460	1.209 ~~0.709~~	~~E~~F(0)	0.737 ~~0.961~~	~~E~~C	1.214 ~~0.714~~	~~E~~F(0)	0.754 ~~0.978~~	~~E~~C	0.005	0.017	No	~~YES~~ No
	SB Mainlines	4M+1A	220,460	0.539 ~~1.157~~	F(0)~~B~~	1.113 ~~1.036~~	F(0)	0.543 ~~1.160~~	F(0)~~B~~	1.129 ~~1.053~~	F(0)	0.004	0.016	No	YES
Governor Dr. to SR 52	NB Mainlines	4M+1A	216,810	1.189 ~~0.697~~	~~E~~F(0)	0.724 ~~0.945~~	~~E~~C	1.194 ~~0.702~~	~~E~~F(0)	0.741 ~~0.962~~	~~E~~C	0.005	0.017	No	~~YES~~ No
	SB Mainlines	4M+1A	216,810	0.530 ~~1.137~~	F(0)~~B~~	1.095 ~~1.019~~	F(0)	0.534 ~~1.141~~	F(0)~~B~~	1.111 ~~1.035~~	F(0)	0.004	0.016	No	YES
SR 52															
I–5 to Genesee Ave.	EB Mainlines	2M	101,430	0.841	D	1.398	F(2)	0.842	D	1.400	F(2)	0.001	0.002	No	No
	WB Mainlines	2M	101,430	1.189	F(0)	0.810	D	1.189	F(0)	0.812	D	0.000	0.002	No	No
Genesee Ave. to I–805	EB Mainlines	2M	111,160	0.922	E	1.532	F(3)	0.923	E	1.536	F(3)	0.001	0.004	No	No
	WB Mainlines	2M	111,160	1.303	F(1)	0.888	D	1.304	F(1)	0.892	D	0.001	0.004	No	No

Source: LLG 2007 (updated in 2008).
1 M: Mainline, A: Auxiliary Lane. Ex. 4M+2A=4 Mainlines + 2 Auxiliary Lanes
2 Existing ADT Volumes from Caltrans
3 Sig? = Significant project impact based on Significance Criteria (YES/No).

LOS	V/C
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

Table 5.3-13
HORIZON YEAR FREEWAY SEGMENT OPERATIONS WITH AND WITHOUT GENESEE AVENUE WIDENING

Freeway and Segment	Direction & Number of Lanes[1]		ADT[2]	Horizon Year Without Project				Horizon Year With Project				V/C Delta		Sig?[3]	
				AM		PM		AM		PM					
				V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM	AM	PM
I–5															
I–805 to Genesee Ave.	NB Mainlines	4M	250,030	1.573	F(3)	1.156	F(0)	1.574	F(3)	1.162	F(0)	0.001	0.006	No	No
	SB Mainlines	4M	250,030	0.907	D	1.637	F(3)	0.909	D	1.643	F(3)	0.002	0.006	No	No
Genesee Ave. to La Jolla Village Dr.	NB Mainlines	4M	235,840	1.484	F(3)	1.090	F(0)	1.485	F(3)	1.094	F(0)	0.001	0.004	No	No
	SB Mainlines	4M	235,840	0.855	D	1.544	F(3)	0.857	D	1.548	F(3)	0.001	0.004	No	No
La Jolla Village Dr. to Gilman Dr.	NB Mainlines	4M	219,650	1.382	F(2)	1.016	F(0)	1.385	F(2)	1.024	F(0)	0.003	0.008	No	No
	SB Mainlines	4M	219,650	0.797	C	1.438	F(2)	0.799	C	1.446	F(2)	0.002	0.008	No	No
I–805															
I–5 to La Jolla Village Dr.	NB Mainlines	4M+1A	198,660	1.089 ~~0.639~~	F(0)~~E~~	0.664 ~~0.866~~	C~~D~~	1.092 ~~0.641~~	F(0)~~E~~	0.673 ~~0.875~~	C~~D~~	0.002	0.009	No	No
	SB Mainlines	4M+1A	198,660	0.486 ~~1.042~~	BF~~(0)~~	1.003 ~~0.934~~	F(0)~~E~~	0.489 ~~1.045~~	BF~~(0)~~	1.013 ~~0.944~~	F(0)~~E~~	0.003	0.010	No	No
La Jolla Village Dr. to Nobel Dr.	NB Mainlines	4M+1A	198,660	1.077 ~~0.632~~	F(0)~~E~~	0.657 ~~0.856~~	C~~D~~	1.081 ~~0.635~~	F(0)~~E~~	0.667 ~~0.867~~	C~~D~~	0.003	0.011	No	No
	SB Mainlines	4M+1A	198,660	0.481 ~~1.031~~	BF~~(0)~~	0.992 ~~0.924~~	E	0.483 ~~1.033~~	F~~(0)~~B	1.002 ~~0.934~~	F(0)~~E~~	0.002	0.010	No	No
Nobel Dr. to Governor Dr.	NB Mainlines	4M+1A	236,480	1.297 ~~0.760~~	F(1)~~E~~	0.790 ~~1.031~~	CF~~(0)~~	1.302 ~~0.765~~	~~E~~F(1)	0.807 ~~1.048~~	DF~~(0)~~	0.005	0.017	No	~~YES~~ No
	SB Mainlines	4M+1A	236,480	0.579 ~~1.241~~	BF~~(0)~~	1.194 ~~1.112~~	F(0)	0.582 ~~1.244~~	F~~(0)~~B	1.210 ~~1.128~~	F(0)	0.004	0.016	No	YES
Governor Dr. to SR 52	NB Mainlines	4M+1A	245,380	1.346 ~~0.789~~	F(1)~~E~~	0.820 ~~1.070~~	DF~~(0)~~	1.351 ~~0.794~~	~~E~~F(2)	0.837 ~~1.086~~	DF~~(0)~~	0.005	0.017	No	~~YES~~ No
	SB Mainlines	4M+1A	245,380	0.600 ~~1.287~~	BF~~(1)~~	1.239 ~~1.154~~	F(0)	0.604 ~~1.291~~	F~~(1)~~B	1.255 ~~1.170~~	F(1) ~~F(0)~~	0.004	0.016	No	YES
SR 52															
I–5 to Genesee Ave.	EB Mainlines	2M	110,670	0.917	D	1.525	F(3)	0.918	D	1.527	F(3)	0.001	0.002	No	No
	WB Mainlines	2M	110,670	1.297	F(1)	0.884	D	1.298	F(1)	0.886	D	0.000	0.002	No	No
Genesee Ave. to I–805	EB Mainlines	2M	121,470	1.007	F(0)	1.674	F(3)	1.008	F(0)	1.678	F(3)	0.001	0.004	No	No
	WB Mainlines	2M	121,470	1.424	F(2)	0.970	E	1.425	F(2)	0.974	E	0.001	0.004	No	No

Source: LLG 2007 (updated in 2008).
1 M: Mainline, A: Auxiliary Lane. Ex. 4M+2A=4 Mainlines + 2 Auxiliary Lanes
2 Existing ADT Volumes from Caltrans
3 Sig? = Significant project impact based on Significance Criteria (YES/No).

LOS	V/C
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

Freeway Ramp Meters

Ramp meter analyses were conducted at the I-805/La Jolla Village Drive/Miramar Road, I-805/Nobel Drive, and I-5/La Jolla Village Drive for near-term conditions. Table 5.3-14, *Near Term Ramp Meter Operations—Fixed Rate*, presents the results using the fixed rate approach. It should be acknowledged that observations of the queues indicate much less of a delay than shown in the calculated queues, as discussed above under Existing Conditions. The proposed project would have a significant direct impact at the following five locations under the near term scenario:

Eastbound La Jolla Village Drive to:

- Southbound I–805 on-ramp, PM peak period
- Northbound I–805 on-ramp, AM and PM peak periods

Eastbound and Westbound Nobel Drive to:

- Southbound I–805 on-ramp, PM peak period
- Southbound I–5 on-ramp, PM peak period

Westbound La Jolla Village Drive to:

- Northbound I–5 on-ramp, PM peak period

Table 5.3-15, *Horizon Year Ramp Meter Operations—Fixed Rate With and Without the Genesee Avenue Widening*, presents the horizon year scenario with the project. The proposed project would have a significant cumulative impact at the following five locations with or without the widening of Genesee Avenue:

Eastbound La Jolla Village Drive to:

- Southbound I–805 on-ramp, PM peak period
- Northbound I–805 on-ramp, PM peak periods

Eastbound and Westbound Nobel Drive to:

- Southbound I–805 on-ramp, PM peak period
- Southbound I–5 on-ramp, PM peak period

Westbound La Jolla Village Drive to:

- Northbound I–5 on-ramp, PM peak period

Table 5.3-14
NEAR TERM RAMP METER OPERATIONS—FIXED RATE

Location	Peak Hour	Near Term Without Project		Near Term With Project		Delay Increase	Sig?
		Delay (min.)	Queue (ft.)	Delay (min.)	Queue (ft.)		
I-805/La Jolla Village Dr./Miramar Rd. Interchange							
WB Miramar Rd. to SB I-805 (2 SOV)	AM	27	4,550	27	4,550	0.0	No
	PM	27	4,550	27	4,550	0.0	No
WB Miramar Rd. to NB I-805 (1 SOV+ 1 HOV)	AM	46	4,575	46	4,575	0.0	No
	PM	154	15,375	154	15,375	0.0	No
EB La Jolla Village Dr. to SB I-805 (1 SOV + 1 HOV)	AM	1	150	3	645	2.0	No
	PM	19	3,750	29	5,843	10.0	YES
EB La Jolla Village Dr. to NB I-805 (1 SOV + 1 HOV)	AM	32	4,725	35	5,175	3.0	YES
	PM	95	14,175	107	16,110	12.0	YES
I-805/Nobel Dr. Interchange							
EB & WB Nobel Dr. to SB I-805 (2 SOV + 1 HOV)	AM	152	18,225	154	18,428	2.0	No
	PM	310	37,238	318	38,115	8.0	YES
I-5/La Jolla Village Dr. Interchange							
WB La Jolla Village Dr. to SB I-5 (1 SOV + 1 HOV)	AM	0	0	0	0	0.0	No
	PM	42	9,975	43	10,155	1.0	No
WB La Jolla Village Dr. to NB I-5 (1 SOV)	AM	81	7,875	82	8,033	1.0	No
	PM	148	14,400	155	15,098	7.0	YES
EB La Jolla Village Dr. to SB I-5 (1 SOV + 1 HOV)	AM	274	23,250	274	23,250	0.0	No
	PM	379	32,250	379	32,250	0.0	No
EB La Jolla Village Dr. to NB I-5 (1 SOV + 1 HOV)	AM	85	8,325	85	8,325	0.0	No
	PM	106	10,350	106	10,350	0.0	No
I-5/Nobel Drive Interchange							
EB & WB Nobel Dr. to SB I-5 (2 SOV + 1 HOV)	AM	18	5,100	19	5,393	1.0	No
	PM	95	27,600	99	28,815	4.0	YES

Source: LLG 2007
Results based on Caltrans' rate code F (most restrictive).
SOV = Single-Occupancy Vehicle; HOV = High-Occupancy Vehicle
Sig = Significant project impacts based on Significance Criteria.

Table 5.3-15
HORIZON YEAR RAMP METER OPERATIONS—FIXED RATE
WITH AND WITHOUT THE GENESEE AVENUE WIDENING

Location	Peak Hour	Horizon Year without Project		Horizon Year with Project		Delay Increase	Sig?
		Delay (min.)	Queue (ft.)	Delay (min.)	Queue (ft.)		
I-805/La Jolla Village Dr./Miramar Rd. Interchange							
WB Miramar Rd. to SB I-805 (2 SOV)	AM	34	5,800	34	5,800	0	No
	PM	34	5,800	34	5,800	0	No
WB Miramar Rd. to NB I-805 (1 SOV+ 1 HOV)	AM	55	5,475	55	5,475	0	No
	PM	182	18,225	182	18,225	0	No
EB La Jolla Village Dr. to SB I-805 (1 SOV + 1 HOV)	AM	29	5,744	31	6,211	2	No
	PM	48	9,675	58	11,651	10	YES
EB La Jolla Village Dr. to NB I-805 (1 SOV + 1 HOV)	AM	51	7,596	53	8021	2	No
	PM	138	20,665	150	22,493	12	YES
I-805/Nobel Dr. Interchange							
EB & WB Nobel Dr. to SB I-805 (2 SOV + 1 HOV)	AM	195	23,379	196	23,570	1	No
	PM	392	47,051	399	47,880	7	YES
I-5/La Jolla Village Dr. Interchange							
WB La Jolla Village Dr. to SB I-5 (1 SOV + 1 HOV)	AM	0	0	0	0	0	No
	PM	61	14,400	62	14,600	1	No
WB La Jolla Village Dr. to NB I-5 (1 SOV)	AM	171	16,650	173	16,825	2	No
	PM	288	28,050	296	28,825	8	YES
EB La Jolla Village Dr. to SB I-5 (1 SOV + 1 HOV)	AM	303	25,713	303	25,713	0	No
	PM	448	38,038	448	38,038	0	No
EB La Jolla Village Dr. to NB I-5 (1 SOV + 1 HOV)	AM	82	7,963	82	7,963	0	No
	PM	99	9,663	99	9,663	0	No
I-5/Nobel Drive Interchange							
EB & WB Nobel Dr. to SB I-5 (2 SOV + 1 HOV)	AM	39	11,175	40	11,468	1	No
	PM	121	35,025	125	36,240	4	YES

Source: LLG 2007
Results based on Caltrans' rate code F (most restrictive).
SOV = Single-Occupancy Vehicle; HOV = High-Occupancy Vehicle
Sig = Significant project impacts based on Significance Criteria.

CMP Arterials

In both the near term and horizon year (with or without the widening of Genesee Avenue) scenarios, neither CMP arterial would experience a significant increase to speed (i.e., one mph increase) with addition of the proposed project. The result of the CMP AM and PM analysis is summarized in Table 5.3-16, *Near Term CMP Arterial Analysis* and Table 5.3-17, *Horizon Year CMP Arterial Analysis With and*

Without the Genesee Avenue Widening. No significant project impact is predicted for the CMP arterials analyzed.

Table 5.3-16
NEAR TERM CMP ARTERIAL ANALYSIS

Arterial Segment	Period	Direction	Near Term Without Project		Near Term With Project		Speed Decrease	Sig?
			Speed[1]	LOS[2]	Speed	LOS		
La Jolla Village Dr. I-5 to I-805	AM	EB	14.8	E	14.6	E	0.2	No
		WB	11.8	F	11.5	F	0.3	No
	PM	EB	15.2	E	14.4	E	0.7	No
		WB	11.1	F	10.2	F	0.9	No
Miramar Rd. I-805 to Eastgate Mall	AM	EB	28.3	B	28.2	B	0.1	No
		WB	21.3	D	21.2	D	0.1	No
	PM	EB	28.2	B	28.0	C	0.2	No
		WB	21.3	D	20.8	D	0.5	No

Source: LLG 2007
1 Speed in miles per hour.
2 Level of Service.

Table 5.3-17
HORIZON YEAR CMP ARTERIAL ANALYSIS
WITH AND WITHOUT THE GENESEE AVENUE WIDENING

Arterial Segment	Period	Direction	Horizon Year		Horizon Year With Project		Speed Decrease	Sig?
			Speed[1]	LOS[2]	Speed	LOS		
La Jolla Village Dr. I-5 to I-805	AM	EB	11.2	F	10.7	F	0.5	No
		WB	7.8	F	7.7	F	0.1	No
	PM	EB	12.3	F	11.4	F	0.9	No
		WB	6.7	F	6.7	F	0.0	No
Miramar Rd. I-805 to Eastgate Mall	AM	EB	20.1	D	20.1	D	0.0	No
		WB	12.4	F	12.4	F	0.0	No
	PM	EB	24.7	C	24.4	C	0.3	No
		WB	11.0	F	10.8	F	0.2	No

Source: LLG 2007
1 Speed in miles per hour.
2 Level of Service.

Significance of Impacts

Street Segments

Under the near term scenario, as shown in Table 5.3-8 and per the City's significance criteria and analysis methodology, the project is calculated to have significant direct impacts on four street segments.

- Genesee Avenue between Nobel Drive and Decoro Street, LOS E
- Genesee Avenue between Governor Drive and SR 52, LOS F
- La Jolla Village Drive between I-5 and Lebon Drive, LOS E
- La Jolla Village Drive between Towne Centre Drive and I-805, LOS F

Under the horizon year scenario, as shown in Table 5.3-9a and per the City's significance criteria and analysis methodology, the project is calculated to have significant cumulative impacts on six street segments without the Genesee Avenue widening in place.

- Genesee Avenue between Nobel Drive and Decoro Street
- Genesee Avenue between Governor Drive and SR 52
- La Jolla Village Drive between I–5 and Lebon Drive
- La Jolla Village Drive between Lebon Drive and Regents Road
- La Jolla Village Drive between Executive Way and Towne Centre Drive
- La Jolla Village Drive between Towne Centre Drive and I-805

With the Genesee Avenue widening in place, the proposed project would no longer have significant cumulative impacts on Genesee Avenue between Nobel Drive and Decoro Street and between Governor Drive and SR 52.

Intersections

Under the near term scenario, as shown in Table 5.3-10, the project is calculated to have significant direct impacts at seven intersections.

- La Jolla Village Drive / Regents Road, PM peak period
- La Jolla Village Drive / Genesee Avenue, PM peak period
- La Jolla Village Drive / Towne Centre Drive, AM and PM peak periods
- Nobel Drive / Lombard Place *(unsignalized)*, PM peak period
- Towne Centre Drive / North UTC driveway *(unsignalized)*, AM and PM peak periods

- Towne Centre Drive / South UTC driveway *(unsignalized)*, AM and PM peak periods
- Governor Drive / Genesee Avenue, PM peak period

Under the horizon year scenario without the Genesee Avenue widening, as shown in Table 5.3-11a, the project is calculated to have significant cumulative impacts at four intersections.

- La Jolla Village Drive / I-805 southbound ramps, AM peak period
- Executive Way / La Jolla Village Drive, AM and PM peak periods
- Nobel Drive / Genesee Avenue, PM peak period
- Decoro Street / Genesee Avenue, PM peak period

With the Genesee Avenue widening in place, the proposed project would no longer have significant cumulative impacts at Decoro Street/Genesee Avenue intersection.

Freeway Segments

Under the near term scenario, as shown in Table 5.3-12, the project was calculated to have significant direct impacts on two freeway segments.

- I-805 between Nobel Drive and Governor Drive, northbound and southbound—PM peak
- I-805 between Governor Drive and SR 52, northbound and southbound —PM peak hour

Under the horizon year scenario, as shown in Table 5.3-13, the project was calculated to have significant cumulative impacts on two freeway segments with and without the Genesee Avenue widening.

- I-805 between Nobel Drive and Governor Drive, northbound and southbound —PM peak
- I-805 between Governor Drive and SR 52, northbound and southbound —PM peak

Freeway Ramp Meters

Under the near term scenario, as shown in Table 5.3-14 under the fixed-rate methodology, the project is calculated to have significant direct impacts at five ramp meter locations.

- Eastbound La Jolla Village Drive to southbound I-805 on-ramp, PM peak period
- Eastbound La Jolla Village Drive to northbound I-805 on-ramp, AM and PM peak periods
- Eastbound and Westbound Nobel Drive to southbound I-805 on-ramp, PM peak period

- Westbound La Jolla Village Drive to northbound I-5 on-ramp, PM peak period
- Eastbound and Westbound Nobel Drive to southbound I-5 on-ramp, PM peak period

Under the horizon year scenario, as shown in Table 5.3-15 under the fixed-rate methodology, the project is calculated to have significant cumulative impacts at five ramp meter locations, without the widening of Genesee Avenue.

- Eastbound La Jolla Village Drive to southbound I-805 on-ramp, PM peak period
- Eastbound La Jolla Village Drive to northbound I-805 on-ramp, PM peak period
- Eastbound and Westbound Nobel Drive to southbound I-805 on-ramp, PM peak period
- Westbound La Jolla Village Drive to northbound I-5 on-ramp, PM peak period
- Eastbound and Westbound Nobel Drive to southbound I-5 on-ramp, PM peak period

With the Genesee Avenue widening in place, the proposed project is calculated to have a significant cumulative impact at two ramp meter locations.

- Eastbound La Jolla Village Drive to southbound I-805 on-ramp, PM peak period
- Eastbound La Jolla Village Drive to northbound I-805 on-ramp, PM peak period

CMP Arterials

As shown in Tables 5.3-16 and 5.3-17, the addition of project traffic would not have a significant impact to CMP Arterials under the near term and horizon year scenarios.

Mitigation Measures, Monitoring and Reporting Program

This section provides a summary of proposed project mitigation measures under both the near term and horizon year scenarios. Figure 5.3-5, *Locations of Direct and Cumulative Traffic Impacts*, illustrates where direct and cumulative impacts are predicted to occur in the project study area. Rick Engineering prepared a feasibility study on all proposed mitigation measures (Rick Engineering 2007a)~~; all improvements recommended in the TIS and outlined herein are feasible from an engineering perspective~~. Despite their feasibility, impacts to street segments, freeways and freeway ramps would remain significant and unmitigable as discussed below.

It should be noted, however, that where the applicant is making a fair share contribution to regional freeway improvement projects (such as improvements to I-805), significant impacts would not be mitigated until other projects in the area pay their fair share and the improvement projects are completed.

Near-Term Conditions

Street Segments

Prior to issuance of a final certificate of occupancy, the project applicant shall implement the following mitigation to the satisfaction of the City Engineer:

Genesee Avenue

The street segment analysis identified significant impacts along Genesee Avenue from Nobel Drive to Decoro Street and Governor Drive to SR 52 in the near term. Planned improvements defined by NUC-A, which would include widening Genesee Avenue from four to six lanes, would mitigate project impacts to below a level of significance. However, due to community concern, the City Council is reviewing the option of not widening the roadway. No official decision has been made at this time. Therefore, project impacts on Genesee Avenue would remain significant and unmitigated. However, intersection mitigation at Decoro Street and Governor Street would improve segment operations and offer partial mitigation for these impacts.

La Jolla Village Drive

The street segment analysis identified significant impacts along La Jolla Village Drive from I-5 to Lebon Drive in the near term. The applicant has indicated in a letter to the traffic engineer that is appended to the TIS that it would not implement all recommended street segment mitigation along La Jolla Village Drive because widening the roadway up to 10 thru lanes plus multiple additional turn lanes would be inconsistent with community character policies in the *University Community Plan*. Specifically, the Community Plan cautions against focusing on short-term conveniences afforded by widening the road while ignoring the negative impact on the quality and livability of the community (see page 63 of the plan). The Community Plan acknowledges that even previous widenings have produced a "freeway effect" through the community and any further widening would only exacerbate the effect (see pages 47 and 58 of the plan). The Community Plan policies and proposed project both encourage "pedestrian friendly" design that widening La Jolla Village Drive would conflict with the community goals for the roadway (see Appendix T of the EIR Appendix B). Mitigation measure 5.3-1 would provide partial mitigation for the project impacts; nonetheless, they would remain significant and unmitigable during the near-term.

Prior to issuance of a final certificate of occupancy, the project applicant shall implement the following measures to the satisfaction of the City Engineer:

MM 5.3-1 The applicant shall provide an additional eastbound lane (eight-lane cross section) along La Jolla Village Drive between Towne Centre Drive and I–805. This shall be achieved

NOTES:

- Does not assume the widening of Genesee Avenue (NUC–A)

LEGEND

- Horizon Year Segment Impact
- Horizon Year Intersection Impact
- Horizon Year Ramp Meter Impact
- Horizon Year Maximum Residential Segment Impact
- Near–Term Segment Impact
- Near–Term Intersection Impact
- Near–Term Ramp Meter Impact

GENESEE AVE
CAMPUS POINT DR
SCRIPPS MEMORIAL HOSPITAL
INTERSTATE 5 FRWY
INTERSTATE 805 FRWY
TOWNE CENTRE DR
EASTGATE MALL
MIRAMAR MALL
MIRAMAR PL
CALLE CRISTOBAL
CALLE SANTA FE
VILLA LA JOLLA DR
UCSD
EXECUTIVE DR
LA JOLLA VILLAGE DR
LA JOLLA VILLAGE DR
PROJECT SITE
SEE DETAIL "A"
PLAZA DE PALI'AS
JUDICIAL DR
NOBEL DR
NOBEL DR
LEBON DR
REGENTS RD
RENAISSANCE AVE
DECORO ST
GENESEE AVE
NOBEL DR
SHORELINE DR
UNIVERSITY HIGH SCHOOL
GILLMAN DR
LA JOLLA COLONY DR
GOVERNOR DR
REGENTS RD
AGEE ST
GULLSTRAND ST
GREENWICH DR
APPLETON ST
LEHRER DR
STATE ROUTE 52
LA JOLLA VILLAGE DR
TOWNE CENTRE DR
GENESEE AVE
PROJECT SITE
GOLDEN HAVEN DR
ESPLANADE CT
RENAISSANCE AVE
GENESEE AVE
LOMBARD PL
NOBEL DR
DETAIL "A"

Source: Linscott, Law, & Greenspan, 2007

NORTH
NOT TO SCALE

REV. 7/11/07
LLG1415 FIG15–1.DWG

I:\ArcGIS\WC1-02 UTC\Map\ENV\EIR\Fig5-3_5_TrafficImpacts.prnd -JP

Locations of Direct and Cumulative Traffic Impacts

UTC REVITALIZATION PROJECT

Figure 5.3-5

through restriping and restricting parking. This would result in this segment being built to its Community Plan classification. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Nobel Drive

In accordance with the Land Development Code Section 142.0610, the project is responsible for frontage segment improvements associated with programmed NUC projects. In this case, NUC–J involves the widening of Nobel Drive from its current four-lane cross-section to a six-lane cross-section from Lebon Drive to Regents Road and from Genesee Avenue to Towne Centre Drive.

MM 5.3-2 The applicant shall provide improvements to Nobel Drive associated with the NUC–J improvement project along its frontage. These improvements shall consist of the widening of Nobel Drive with right-of-way acquisition from the north side. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Intersections

Table 5.3-18, *Near Term Intersection Mitigation Analysis*, summarizes intersection mitigation under the near term scenario before and after mitigation is applied. Implementation of the proposed mitigation would reduce significant direct impacts to intersections to below a level of significance. Prior to issuance of a final certificate of occupancy, the project applicant shall implement the following mitigation to the satisfaction of the City Engineer:

La Jolla Village Drive/Regents Road

MM 5.3-3 The applicant shall reconfigure the westbound approach to provide a dedicated right-turn lane at the intersection of La Jolla Village Drive and Regents Road. Roadway widening and/or modifications to the median along the roadway may be required. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

La Jolla Village Drive/Genesee Avenue

MM 5.3-4 The applicant shall reconfigure the northbound approach to provide a dedicated right-turn lane at the intersection of La Jolla Village Drive and Genesee Avenue. Roadway widening and/or modifications to the median along the roadway may be required. The

applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Table 5.3-18
NEAR-TERM INTERSECTION MITIGATION ANALYSIS

Intersection	Peak Hour	Near Term		Near Term With Project		Near Term With Project and Mitigation		Mitigation
		Delay[1]	LOS[2]	Delay	LOS	Delay	LOS	
La Jolla Village Drive								
La Jolla Village Dr./ Regents Rd.	AM	52.8	D	53.7	D	53.2	D	Westbound Right-Turn
	PM	77.2	E	79.3	F	75.3	E	
La Jolla Village Dr./ Genesee Ave.	AM	99.3	F	100.8	F	66.6	E	Northbound Right-turn
	PM	67.5	E	71.1	E	65.8	E	
La Jolla Village Dr./ Towne Centre Dr.	AM	82.7	F	85.5	F	57.6	E	Northbound Thru
	PM	75.4	E	79.7	E	75.0	E	
Project Driveways								
Nobel Dr./Lombard Pl.	AM	1.9	A	4.1	A	16.3	B	Signalize
	PM	10.5	B	>50.1	F	23.3	C	
Towne Centre Dr./N. UTC Driveway	AM	>50.1	F	>50.1	F	No conflicting movements		Raised Median (Right-Turn Only)
	PM	46.3	E	>50.1	F			
Towne Centre Dr./S. UTC Driveway	AM	>50.1	F	>50.1	F	24.4	C	Signalize
	PM	43.0	E	>50.1	F	30.5	C	
Governor Drive								
Governor Dr./Genesee Ave.	AM	78.4	E	80.3	F	50.0	D	Westbound Right-Turn
	PM	103.2	F	108.2	F	69.9	E	

Source: LLG 2007

1 Average delay expressed in seconds per vehicle.

2 Level of Service.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
> 80.1	F	> 50.1	F

La Jolla Village Drive/Towne Centre Drive

MM 5.3-5 The applicant shall construct a second northbound thru lane by widening Towne Centre Drive at the intersection of Towne Centre Drive and La Jolla Village Drive. To accommodate the additional lanes, widening and/or modifications to the median along the roadway may be required. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Nobel Drive/Lombard Place

MM 5.3-6 The applicant shall install a traffic signal and appropriate signal interconnect satisfactory to the City Engineer at the intersection of Nobel Drive/Lombard Place and the Project Driveway. Timing plans shall be developed and implemented by the City. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Towne Centre Drive/North UTC Project Driveway

MM 5.3-7 The applicant shall reconfigure the North UTC Project Driveway to permit right-turn only movements at its intersection with Towne Centre Drive. This shall be accomplished through the construction of a raised center median, extending along Towne Centre Drive ~~or~~ from La Jolla Village Drive to the south UTC driveway, and installation of "right-turn only" signage. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Towne Centre Drive/South UTC Project Driveway

MM 5.3-8 The applicant shall install a traffic signal and appropriate interconnect at the intersection of Towne Centre Drive and the South UTC Project Driveway. Timing plans shall be developed and implemented by the City. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit (subject to partial reimbursement already paid to the City by the Congregation Beth Israel as project mitigation).

Governor Drive/Genesee Avenue

MM 5.3-9 The applicant shall reconfigure the westbound approach to provide a dedicated right-turn lane at the intersection of Governor Drive and Genesee Avenue. Roadway widening and/or modifications to the median along the roadway may be required. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Freeway Segments

The freeway segment analysis identified significant impacts along I-805 between Nobel Drive and SR 52 in the near term and horizon year. ~~SANDAG has identified future improvements to both I-5 and I-805 within the project area. These improvements are part of the Mobility 2030 Plan.~~ Prior to issuance of a final certificate of occupancy, the project applicant shall implement the following mitigation to the satisfaction of the City Engineer:

MM 5.3-10 The applicant shall pay a fair share contribution of $3.38 million (equivalent to $1,000 per ADT) toward the study, design or implementation of ~~the proposed managed lanes on I-805 between Carroll Canyon Road and SR-52~~ traffic operational improvements (i.e., auxiliary lanes) on I-805 between La Jolla Village Drive and SR-52.

Despite the implementation of the above mitigation, impacts to freeway segments would be significant and unmitigable. Planned improvements to the freeway would, however, improve conditions in the future but are not assumed in the analysis.

Freeway Ramp Meters

The following ramp meter improvements are identified by the project applicant as design features to add queue storage in both the near term (direct) and horizon year (cumulative). The identified improvements would not technically mitigate project impacts (i.e. reduce ramp meter delays); rather, they would offer additional queue storage ~~and are deemed feasible by the Civil Engineer~~. For this reason, they have been removed from the list of mitigation measures. Planned freeway improvements on I–5 and I–805 (see Section 10.2 of the Traffic Impact Study) ~~would offer partial mitigation for~~will improve ramp meter ~~impacts~~operations. Ramp meter impacts would remain significant and unmitigable. Planned improvements to the freeway would, however, improve conditions in the future.

Eastbound and Westbound Nobel Drive to Southbound I–805

- ~~MM 5.3-11~~The applicant ~~shall~~ has proposed to extend the existing number one westbound left-turn lane on Nobel Drive approximately 500 feet east of the I-805 southbound off-ramp to provide additional queue storage.

Westbound La Jolla Village Drive to Northbound I–5

- ~~MM 5.3-12~~ The applicant ~~shall~~ has proposed to widen the I-5 northbound on-ramp at westbound La Jolla Village Drive to provide an HOV lane to provide additional queue storage and promote carpooling.

Eastbound and Westbound Nobel Drive to Southbound I–5

- ~~MM 5.3-13~~The applicant ~~shall~~ has proposed to extend the existing number one westbound left-turn lane on Nobel Drive approximately 300 feet east of University Center Lane to provide additional queue storage.

Eastbound La Jolla Village Drive to Southbound I-805

- ~~MM 5.3-14~~The applicant ~~shall~~ has proposed to extend the southbound on-ramp west to the Judicial Drive undercrossing (based on preliminary interchange improvements) to provide additional queue storage.

Horizon Year Conditions

Significant cumulative street segment impacts to Genesee Avenue and La Jolla Village Drive in the horizon year would be significant and unmitigable because the City Council is reviewing whether the Genesee Avenue widening will occur and the applicant has indicated they would not implement improvements along La Jolla Village Drive that would conflict with the Community Plan policies on community character and urban design, as discussed under near-term street segment conditions. Significant cumulative impacts to intersections would be reduced to below a level of significance through the implementation of near-term mitigation measures MM 5.3-3 through MM 5.3-9, above, and horizon year mitigation measures MM 5.3-~~15~~-11 through MM 5.3-~~18~~-14 listed below (see Table 5.3-19, *Horizon Year Intersection Mitigation Analysis*.) Significant impacts to freeway segments and freeway ramp meters would remain unmitigated, ~~until future improvements identified in the SANDAG~~

~~Mobility 2030 Plan are implemented.~~ Planned improvements to the freeway would, however, improve conditions in the future but are not assumed in the analysis.

Intersections

The following intersection improvements and cost participation are identified to mitigate significant cumulative impacts in the horizon year to below a level of significance.

La Jolla Village Drive/I-805 Southbound Ramps

MM 5.3-~~15~~11 The applicant shall restripe the four-lane southbound approach at the intersection of La Jolla Village Drive and the I-805 southbound ramps to include left, right-left, and dual right-turn lanes. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

La Jolla Village Drive/Executive Way

MM 5.3-~~16~~12 The applicant shall reconfigure the northbound approach to La Jolla Village Drive at Executive Way to provide a second right-turn lane. Roadway widening and/or modifications to the median along the roadway may be required. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Nobel Drive/Genesee Avenue

MM 5.3-~~17~~13 The applicant shall reconfigure the westbound approach to provide a dedicated right-turn lane at the intersection of Nobel Drive and Genesee Avenue. Roadway widening and/or modifications to the median along the roadway may be required. Modifications to the traffic signal timing by the City in conjunction with the lane dedications would ~~also~~ be required. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Decoro Street/Genesee Avenue

MM 5.3-~~18~~14 The applicant shall stripe the eastbound approach to provide left-thru-right and right-turn lanes at the intersection of Decoro Street and Genesee Avenue. To accommodate the additional lane, widening the roadway may be required. The applicant shall provide 100 percent financial contribution and assure mitigation by permit and bond due prior to the issuance of the first building permit.

Table 5.3-19
HORIZON YEAR INTERSECTION MITIGATION ANALYSIS

Intersection	Peak Hour	Horizon Year		Horizon Year With Project		Horizon Year With Project and Mitigation		Mitigation
		Delay[1]	LOS[2]	Delay	LOS	Delay	LOS	
La Jolla Village Drive								
La Jolla Village Dr./I–805 SB Ramps	AM	70.2	E	73.3	E	64.8	E	Restripe Southbound Approach to include additional right-turn
	PM	38.6	D	45.7	D	32.0	C	
Project Driveways								
La Jolla Village Dr./ Executive Way	AM	65.1	E	70.2	E	61.4	E	Northbound Right-Turn
	PM	75.8	E	77.7	E	70.9	E	
Nobel Drive								
Nobel Dr./Genesee Ave.	AM	50.6	D	51.5	D	49.1	D	Westbound Right-Turn
	PM	58.5	E	65.9	E	60.3	E	
Decoro Street								
Decoro St./Genesee Ave.	AM	65.8	E	66.1	E	61.9	E	Stripe Eastbound Approach to provide left-thru-right and right-turn lanes
	PM	82.3	F	92.2	F	83.0	F	

Source: LLG 2007
1 Average delay expressed in seconds per vehicle.
2 Level of Service.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
> 80.1	F	> 50.1	F

Other ~~Mitigation~~Project Improvements

- ~~MM 5.3-19~~The applicant ~~shall~~ has proposed to relocate and expand the bus center, plan for the future Light Rail Transit station and implement a comprehensive Travel Demand Management (TDM) plan. These proposed improvements are described ~~, as outlined~~ in Section 3.0 of this

report and Section 16.0 of the Traffic Impact Study-; however, the Traffic Impact Study has not assumed any trip reductions because of these improvements. In addition, these improvements reflect the broader transit goals of the *University Community Plan* (UCP), as discussed on pages 37, 142 and 151 of the UCP.

Issue 2: Would the proposal result in traffic generation in excess of the allocations identified in the University Community Plan?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein; however, the worst-case scenario is the Maximum Residential, as discussed below. It should be noted that the project applicant has decided to not pursue hotel or office uses although the analysis remains herein for information purposes.

The proposed project includes a Community Plan Amendment (CPA) to modify the intensity of development outlined in the community plan by increasing the amount of regional commercial square footage currently allowed on site and by allowing a non-retail land use (up to 725 multi-family units). The proposed project would increase the density of development on the project site above the anticipated density permitted in the community plan. Under buildout conditions, project trip generation would be increased by 21,900 driveway trips (or 17,800 cumulative trips) above the current 36,900 driveway trips (29,650 cumulative trips allocated to the UTC site in the community plan (refer to Table 3 of the Community Plan). An analysis of these additional trips is provided under Issue 1.

As discussed above under Issue 1, it was assumed, for purposes of this analysis, that the construction of a number of roadway improvements would be in place by the Near Term (Year 2010), pending land acquisition, based on information provided in the NUC FBA. Refer to *Future Conditions* under Issue 1 for details regarding planned improvements.

As discussed in Section 3.0, *Project Description*, the project applicant is proposing as a Master PDP. The Master PDP presents variable development programs that can respond to changing market conditions and desires of the community based on ADT generated by each use on the site and critical peak hour equivalency of AM inbound and PM outbound ADT movement. In addition to the proposed project (750,000 square feet retail and 250 dwelling units), ~~seven different land use scenarios were developed based on a trip generation equivalency.~~ examples of seven land use scenarios are provided to illustrate how the center may develop with a varying mix of retail, residential, hotel and office uses, as long as the mix of land uses development intensity does not exceed the traffic parameters established in this analysis. The intent of the Master PDP is to allow flexibility in the development program while ensuring the alternative project scenarios have been addressed by the analysis of the proposed project. The alternative land use scenarios analysis methodology (i.e., critical peak hour equivalency and modified study area) was developed in conjunction with City staff.

A trip generation analysis was performed to develop different land use scenarios. The determining factor was the "Critical Peak Hour Equivalency" (AM inbound and PM outbound). The critical peak hour movements, namely the inbound AM peak hour and the outbound PM peak hour, were determined in conjunction with City staff and reflect critical directional movements within the University City community. Particularly within the study area, these movements are related to the adjacent land use traffic patterns. Such land uses include predominately commercial office, regional retail, university, and scientific research. Table 5.3-20, *Master PDP Land Use Scenarios Trip Generation Comparison*, summarizes the cumulative ADT associated with the proposed project and each of seven different example land use scenarios, all of which qualify as generating less than the AM peak hour inbound and PM peak hour outbound ADT for the proposed project. The scenarios generate fewer overall ADT than the original proposed project, which is listed as Scenario 1 in the table. Appendix N of the Traffic Impact Study contains detailed trip generation information for each scenario (see Appendix B to this EIR).

It should be noted that the trip generation for the land use scenarios may be overstated since no transit reduction was applied to the retail component and no mixed-use reduction was applied to the hotel component. Despite this conservative estimate, transit and mixed-use trip generation reductions are expected due to the location of a regional transit center on site and the synergy of land uses.

Considering the various land use scenarios, Table 5.3-23 shows that the Maximum Residential land use scenario (Scenario 2) results in the highest traffic volumes of the various land use scenarios and would likely be the most traffic intensive. Scenarios 3 through 8 generate fewer trips, and although there may be some nuances involved in trip distributions for hotel or commercial office, these components are small enough that no additional impacts are expected beyond those calculated in the Maximum Residential land use scenario. As a result, the Maximum Residential land use scenario represents the worst-case scenario and therefore any impacts calculated for this scenario would represent the other scenarios' impacts.

Based on this assumption, the traffic analysis was performed for the Maximum Residential land use scenario in the horizon year. The analysis was performed for a modified study area that was smaller than the proposed project study area, containing 26 intersections and 18 segments from the original study area. These intersections and segments were chosen based on calculated significant impacts from the original project and by comparing the alternative project volumes to the original project volumes. Wherever the land use scenario volumes were less than the original project volumes, it was assumed that any new analysis would only produce better results than the original project and, therefore, a new analysis was not necessary. The following section considers the most traffic intensive project scenario, the "Maximum Residential" scenario.

Maximum Residential Land Use Scenario

The Maximum Residential scenario would expand existing facilities by 610,000 s.f. of commercial retail and 725 multi-family residential units. This differs from the project description in that the commercial retail expansion would decrease by 140,000 s.f. and the multi-family residential units would increase by 475 units. Site access would remain the same as for the original project, with access provided along La Jolla Village Drive, Towne Centre Drive, Nobel Drive and Genesee Avenue.

Trip Generation

Trip generation estimates for the Maximum Residential scenario were based on *The City of San Diego Trip Generation Manual*. The specific land use designation used for the trip generation was "Regional Retail" and "Multi-Family Residential," as it best fits the description of the project. Similar to the proposed project, the 'Regional Retail' trip generation rate is based on the post-project square footage (i.e., existing plus expansion), resulting in 31.2 daily trips per 1,000 square feet. The same mixed-use and regional transit reductions were applied as those applied in the original project's trip generation per the City of San Diego Traffic Impact Study Manual.

Table 5.3-21, *Maximum Residential Land Use Scenario Trip Generation*, summarizes the Maximum Residential scenario traffic generation. As for the proposed project, alternative project traffic is identified as driveway, cumulative or pass-by trips. The alternative is calculated to generate approximately 17,420 cumulative ADT (254 inbound/317 outbound trips during the AM peak hour and 848 inbound/715 outbound trips during the PM peak hour), and 20,850 driveway ADT (303 inbound/338 outbound trips during the AM peak hour and 1,002 inbound/869 outbound trips during the PM peak hour).

Trip Distribution

The Maximum Residential land use scenario traffic was distributed and assigned to the study area network based on two separate distributions. For the commercial retail portion, the trips were assigned based on the proposed project's distribution, which was based on the SANDAG Series 9 Select Zone Assignment model with a 2020 horizon year. For the residential portion of the Maximum Residential scenario, a new distribution was derived. The residential distribution was patterned after the approved traffic study for Monte Verde, with slight adjustments made to reflect the specific project driveway locations. The directional distribution of the development traffic approaching and departing the site in either case is a function of population densities, near-term and future travel patterns and the efficiency of the study area roadways. The two assignments were combined.

Pass-by trip adjustments, per the City Traffic Impact Study Manual, were made to account for vehicles attracted to the site already on the roadway system. Through traffic was reduced as trips passing the

Table 5.3-20
MASTER PDP LAND USE SCENARIOS
TRIP GENERATION COMPARISON ("CUMULATIVE")

Project Scenarios	Land Use				Weekday ADT	AM Peak Hour			PM Peak Hour		
	Retail (sf)	Residential (units)	Hotel (rooms)	Office (sf)		In	Out	2-Way	In	Out	2-Way
Scenario 1: Proposed Project	750,000	250 units	—	—	17,800	256	182	438	825	778	1,603
Critical Peak Hour Equivalency (AM Inbound and PM Outbound)											
Scenario 2: Maximum Residential	610,000	725	—	—	17,420	254	317	571	848	715	1,563
Scenario 3: Maximum Hotel	525,000	—	185	—	15,120	252	124	376	686	656	1,342
Scenario 4: Maximum Office	525,000	—	—	35,000	13,590	256	85	341	593	654	1,247
Scenario 5: All Uses	375,000	250	100	35,000	11,430	254	164	418	523	522	1,045
Scenario 6: No Hotel	425,000	500	—	35,000	12,780	253	227	480	602	571	1,174
Scenario 7: No Office #1	425,000	300	250	—	13,860	255	217	472	658	563	1,221
Scenario 8: No Office #2	350,000	610	250	—	13,820	256	306	562	684	532	1,216

Source: LLG 2007

Bold typeface indicated an increase in volume from the Current Site Plan volumes

All calculations include City of San Diego "mixed-use" and "transit" reductions.

Appendix N contains detailed trip generation information for each scenario.

site are redirected into the driveway. Finally, the redirected pass-by trips are assigned as outbound traffic to continue traveling to their original destination. The magnitudes of pass-by adjustments are reflective of the driveway percentage distribution.

Table 5.3-21
MAXIMUM RESIDENTIAL LAND USE SCENARIO
TRIP GENERATION

Land Use	Trip Rate[1]	Trip Type	Weekday ADT[2]	AM Peak Hour		PM Peak Hour	
				In	Out	In	Out
Regional Retail (610,000 SF)	31.2 trips/1,000 SF[3] AM - 2% of ADT {70:30}[4] PM - 9% of ADT {50:50}	*Driveway*	19,032	266	114	856	856
	Community Mixed-Use Reduction[5]:	*Driveway*	10%	8%		10%	
			(1,903)	(21)	(9)	(86)	(86)
	Transit Reduction[5]:	*Driveway*	0%	0%		0%	
			(0)	(0)	(0)	(0)	(0)
	Subtotal:	*Cumulative (80%)*	13,703	196	84	616	616
		Pass-By f (20%)	3,426	49	21	154	154
		Driveway	17,129	245	105	770	770
Multi-Family Residential (725 units)	6 trips/dwelling unit AM - 8% of ADT {20:80} PM - 9% of ADT {70:30}	*Driveway*	4,350	70	278	274	117
	Community Mixed-Use Reduction[5]:	*Driveway*	10%	8%		10%	
			(435)	(6)	(22)	(27)	(12)
	Transit Reduction[5]:	*Driveway*	5%	9%		6%	
			(196)	(2)	(23)	(15)	(6)
	Subtotal:	*Cumulative (100%)*	3,719	58	233	232	99
		Pass-By f (0%)	0	0	0	0	0
		Driveway	3,719	58	233	232	99
TOTALS (ADTs rounded):		*Cumulative*	17,420	254	317	848	715
		Pass-By	3,430	49	21	154	154
		Driveway	20,850	303	338	1,002	869

Source: LLG 2007

1 Based on the City of San Diego Trip Generation Manual, May 2003.

2 Traffic volumes expressed in vehicles per day.

3 Based on Regional Retail Trip Generation (Ln (T) = 0.756 Ln (X) + 5.25, where T is the number of trips and X is the square footage in 1,000's) at post expansion square footage (1,061,400 + 610,000 = 1,671,400 SF).

4 Ratio denotes in:out traffic split.

5 Reductions per the City Traffic Impact Study Manual (refer to Appendix D).

Pass-by represents difference between Driveway and Cumulative trips, per the City Trip Generation Manual (refer to Appendix D). **Driveway Trips** = vehicles entering and exiting project driveways (Driveway = Cumulative + Pass-By). **Cumulative Trips** = net new vehicles added to the network. **Pass-By Trips** = vehicles already on the street network diverting to the project site

Horizon Year

Traffic Volumes

The Maximum Residential scenario traffic volumes were added to the horizon year without project scenario ADT.

Street Segment Operations

Horizon year street segment analyses were conducted for eighteen of the original roadways in the study area. Table 5.3-22a, *Maximum Residential Land Use Scenario Horizon Year Street Segment Operations Without Genesee Avenue Widening,* summarizes horizon year street segment operations without the widening of Genesee Avenue.

The addition of Maximum Residential scenario traffic is calculated to increase V/C on most segments, and degradation in LOS is calculated on some street segments. A significant cumulative impact is calculated at seven street segments under the horizon year without the widening of Genesee Avenue under the Maximum Residential scenario:

- Genesee Avenue, Nobel Street to Decoro Street, LOS F
- Genesee Avenue, Governor Drive to SR 52, LOS F
- La Jolla Village Drive, I–5 to Lebon Drive, LOS E
- La Jolla Village Drive, Lebon Drive to Regents Road, LOS E
- La Jolla Village Drive, Genesee Avenue to Executive Way, LOS F (new impact)
- La Jolla Village Drive, Executive Way to Towne Centre Drive, LOS E
- La Jolla Village Drive, Towne Centre Drive to I-805, LOS E

These significant cumulative street segment impacts are the same as those calculated for the proposed project, with the exception of La Jolla Village Drive between Genesee Avenue and Executive Way for the Maximum Residential Alternative. This impact could be mitigated by widening La Jolla Village Drive from three to four eastbound lanes between Genesee Avenue and Executive Way (see Table 5.3-26, *Maximum Residential Land Use Scenario Horizon Year Street Segment Mitigation Analysis*, for a summary of mitigation analysis for the alternative project).

Table 5.3-22a
MAXIMUM RESIDENTIAL LAND USE SCENARIO
HORIZON YEAR STREET SEGMENT OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Roadway Segment	Lanes	Classification	Capacity	Horizon Year			Horizon Year With Project			V/C	Sig?[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS	Increase	
Genesee Avenue											
La Jolla Village Dr. to Esplanade Ct.	6	Major Arterial	50,000	34,670	0.693	C	36,590	0.732	C	0.038	No
Esplanade Ct. to Nobel Dr.	6	Major Arterial	50,000	33,890	0.678	C	35,890	0.718	C	0.040	No
Nobel Dr. to Decoro St.[6]	4	Major Arterial	40,000	39,230	0.981	E	41,300	1.033	F	0.052	Yes
Decoro St. to Governor Dr.[6]	4	Major Arterial	40,000	32,960	0.824	D	34,960	0.874	D	0.050	No
Governor Dr. to SR 52[6]	4	Major Arterial	40,000	41,500	1.038	F	42,890	1.072	F	0.035	Yes
La Jolla Village Drive											
I-5 to Lebon Dr.[7]	7	Prime Arterial	65,000	61,460	0.946	E	63,130	0.971	E	0.026	Yes
Lebon Dr. to Regents Rd.	6	Prime Arterial	60,000	56,650	0.944	E	58,390	0.973	E	0.029	Yes
Regents Rd. to Genesee Ave.	6	Prime Arterial	60,000	46,660	0.778	C	49,170	0.820	C	0.042	No
Genesee Ave. to Executive Way	6	Prime Arterial	60,000	63,390	1.057	F	64,960	1.083	F	0.026	Yes
Executive Way to Towne Centre Dr.	6	Prime Arterial	60,000	54,220	0.904	D	56,560	0.943	E	0.039	Yes
Towne Centre Dr. to I-805[7]	9	Prime Arterial	75,000	69,030	0.920	E	73,430	0.979	E	0.059	Yes
Towne Centre Drive											
La Jolla Village Dr. to UTC N. Dwy	4	Major Arterial	40,000	16,620	0.416	B	19,880	0.497	B	0.082	No
UTC N. Dwy to UTC S. Dwy	4	Major Arterial	40,000	17,520	0.438	B	20,780	0.520	B	0.082	No
UTC S. Dwy to Golden Haven Dr.	4	Major Arterial	40,000	14,220	0.356	A	15,830	0.396	B	0.040	No
Golden Haven Dr. to Renaissance Dr.	4	Collector	30,000	13,860	0.462	B	14,840	0.495	C	0.033	No
Renaissance Dr. to Nobel Dr.	4	Collector	30,000	15,760	0.525	C	16,360	0.545	C	0.020	No
Nobel Drive											
Genesee Ave. to Lombard Pl.	6	Prime Arterial	60,000	28,920	0.482	B	32,730	0.546	B	0.064	No
Lombard Pl. to Towne Centre Dr.	6	Prime Arterial	60,000	22,520	0.375	A	23,250	0.388	A	0.012	No

Source: LLG 2007

1 Capacity based on roadway classification operating at LOS E.

2 Average Daily Traffic.

3 Volume to Capacity.

4 Level of Service.

5 Sig? = Significant project impact based on Significance Criteria.

6 Planned Roadway Improvements in the Horizon Year.

7 Near-term mitigation assumed in place for the analysis. However, a significant impact is expected without this mitigation in place as well. It should be noted that the applicant does not propose mitigation due to planning, community concern, and public policy reasons.

Table 5.3-22b
MAXIMUM RESIDENTIAL LAND USE SCENARIO
HORIZON YEAR STREET SEGMENT OPERATIONS
WITH GENESEE AVENUE WIDENING

Roadway Segment	Lanes	Classification	Capacity	Horizon Year			Horizon Year With Project			V/C	Sig?[5]
			(LOS E)[1]	ADT[2]	V/C[3]	LOS[4]	ADT	V/C	LOS	Increase	
Genesee Avenue											
Nobel Dr. to Decoro St.[6]	6	Major Arterial	50,000	39,230	0.785	C	41,300	0.826	D	0.041	No
Decoro St. to Governor Dr.[6]	6	Major Arterial	50,000	32,960	0.659	C	34,960	0.699	C	0.040	No
Governor Dr. to SR 52[6]	6	Major Arterial	50,000	41,500	0.830	D	42,890	0.858	D	0.028	No

Source: LLG 2007

1 Capacity based on roadway classification operating at LOS E.

2 Average Daily Traffic.

3 Volume to Capacity.

4 Level of Service.

5 Sig? = Significant project impact based on Significance Criteria.

6 Planned Roadway Improvements in the Horizon Year.

Assuming the widening of Genesee Avenue, the street segment results remain the same as those shown in Table 5.3-22a with the exception of four segments. Table 5.3-22b shows the horizon year street segment operations with the widening of Genesee Avenue during the peak hours that differ from Table 5.3-22a. Assuming the widening of Genesee Avenue, the project would no longer have significant cumulative impacts on Genesee Avenue for Nobel Drive to Decoro Drive and from Governor Drive to SR 52.

Intersection Operations

Intersection capacity analyses were conducted for the horizon year with alternative project traffic included. Table 5.3-23a, *Maximum Residential Land Use Scenario Horizon Year Intersection Operations Without Genesee Avenue Widening*, shows intersection operations without the widening of Genesee Avenue during the peak hours. Appendix O of the traffic impact study contains the calculation sheets. The addition of the alternative project's traffic is calculated to increase intersection delays for both the AM and PM peak periods and LOS is degraded at certain intersections. Significant cumulative impacts are calculated at the following four intersections:

- La Jolla Village Drive / I-805 southbound ramps, AM peak period
- La Jolla Village Drive / Executive Way, AM peak period
- Nobel Drive / Genesee Avenue, PM peak period
- Decoro Street / Genesee Avenue, PM peak period

These significant cumulative intersection impacts are the same as those calculated under the original project.

Assuming the widening of Genesee Avenue, the intersection results would remain the same as those shown in Table 5.3-~~22a~~23a with the exception of five intersections. Table 5.3-~~22b~~23b, *Maximum Residential Land Use Scenario Horizon Year Intersection Operations Without Genesee Avenue Widening*, shows the horizon year intersection operations with Genesee Avenue widening during the peak hours that differ from Table 5.3-~~22a~~23a. Assuming the widening of Genesee Avenue, the project would no longer have a significant cumulative impact at the intersection of Decoro Street/Genesee Avenue.

Table 5.3-23a
MAXIMUM RESIDENTIAL LAND USE SCENARIO
HORIZON YEAR INTERSECTION OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
Genesee Avenue							
Genesee Avenue / I-5 SB Ramps	AM	~~94.0~~87.8	~~F~~E	~~88.5~~94.5	F	~~0.7~~0.5	No
	PM	~~68.9~~108.7	~~F~~E	~~108.7~~69.1	~~F~~E	~~0.0~~0.2	No
Genesee Avenue / I-5 NB Ramps	AM	20.3~~86.4~~	F	~~87.0~~90.9	F	0.6	No
	PM	95.4~~71.9~~	~~E~~F	~~73.2~~96.6	~~E~~F	~~1.3~~1.2	No
Genesee Avenue / Scripps Hospital[4]	AM	34.9	C	35.7	D	0.8	No
	PM	30.3	C	30.3	C	0.0	No
Genesee Avenue / Campus Point Drive[4]	AM	108.0	F	108.3	F	0.3	No
	PM	72.0	E	73.0	E	1.0	No
Genesee Avenue / Regents Road[4]	AM	18.4	B	18.7	B	0.3	No
	PM	13.7	B	13.9	B	0.2	No
Genesee Avenue / Eastgate Mall [4]	AM	44.9	D	45.4	D	0.5	No
	PM	26.9	C	29.6	C	2.7	No
Genesee Avenue / Executive Drive	AM	34.6	C	35.1	D	0.5	No
	PM	61.8	E	61.9	E	0.1	No
Genesee Avenue / Executive Square	AM	47.4	D	51.4	D	4.0	No
	PM	25.3	C	28.9	C	3.6	No
Genesee Avenue / Nobel Drive[5]	AM	50.6	D	53.7	D	3.1	No
	PM	58.5	E	64.8	E	6.3	**YES**
Genesee Avenue / Decoro Street	AM	65.8	E	66.4	E	0.6	No
	PM	*82.3*	*F*	*90.4*	*F*	*8.1*	***YES***
Genesee Avenue / University City High School	AM	58.4	E	59.7	E	1.3	No
	PM	9.3	A	13.6	B	4.3	No
Genesee Avenue / Governor Drive[5]	AM	122.8	F	124.2	F	1.4	No
	PM	113.0	F	114.3	F	1.3	No
Genesee Avenue / SR 52 WB Ramps[4]	AM	3.3	A	3.3	A	0.0	No
	PM	87.1	F	88.8	F	1.7	No
Genesee Avenue / SR 52 EB Ramps	AM	98.8	F	99.8	F	1.0	No
	PM	107.9	F	109.5	F	1.6	No
La Jolla Village Drive							
La Jolla Village Drive / Regents Road[4, 5]	AM	58.8	E	59.6	E	0.8	No
	PM	95.7	F	95.8	F	0.1	No
La Jolla Village Drive / Genesee Avenue[5]	AM	99.9	F	100.6	F	0.7	No
	PM	80.1	F	81.1	F	1.0	No
La Jolla Village Drive / Towne Centre Drive[5]	AM	158.5	F	159.5	F	1.0	No
	PM	142.2	F	143.3	F	1.1	No

Table 5.3-23a (cont.)
MAXIMUM RESIDENTIAL LAND USE SCENARIO
HORIZON YEAR INTERSECTION OPERATIONS
WITHOUT GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
La Jolla Village Drive (cont.)							
La Jolla Village Drive / I–805 SB Ramps[4]	AM	70.2	E	72.8	E	2.6	YES
	PM	38.6	D	44.2	D	5.6	No
Towne Centre Drive							
Towne Centre Drive / Golden Haven Drive	AM	18.2	B	20.0	B	1.8	No
	PM	20.5	B	24.8	C	4.3	No
Towne Centre Drive / Renaissance Avenue	AM	10.3	B	11.5	B	1.2	No
	PM	8.7	A	9.4	A	0.7	No
Towne Centre Drive / Nobel Drive	AM	25.4	C	25.6	C	0.2	No
	PM	38.7	D	42.1	D	3.4	No
Project Driveways							
La Jolla Village Drive / Executive Way	AM	65.1	E	68.9	E	3.8	YES
	PM	74.8	E	76.6	E	1.8	No
Genesee Avenue / Esplanade Court	AM	30.8	C	33.7	C	2.9	No
	PM	30.9	C	32.0	C	1.1	No
Nobel Drive / Lombard Place[4, 5]	AM	10.5	B	12.8	B	2.3	No
	PM	13.6	B	20.2	C	6.6	No
Towne Centre Dr. / North UTC dwy (unsignalized)[5]	AM	25.8	D	28.5	D	2.7	No
	PM	3.2	A	7.4	A	4.2	No
Towne Centre Dr. / South UTC dwy[5]	AM	31.6	C	35.5	D	3.9	No
	PM	24.3	C	35.9	D	11.6	No

Source: LLG 2007

1 Average delay expressed in seconds per vehicle.

2 Level of Service.

3 Sig? = Significant project impacts based on Significance Criteria.

4 Planned roadway improvements for the horizon year (with and without project scenarios).

5 Near-term mitigation assumed in place (with and without project scenarios).

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
> 80.1	F	> 50.1	F

Table 5.3-23b
MAXIMUM RESIDENTIAL LAND USE SCENARIO
HORIZON YEAR INTERSECTION OPERATIONS
WITH GENESEE AVENUE WIDENING

Intersection	Peak Hour	Horizon Year Without Project		Horizon Year With Project		Delay Increase	Sig?[3]
		Delay[1]	LOS[2]	Delay[1]	LOS[2]		
Genesee Avenue							
Genesee Avenue / Nobel Drive[5]	AM	37.0	D	40.4	D	3.4	No
	PM	63.1	E	67.9	E	4.8	YES
Genesee Avenue / Decoro Street[4]	AM	18.8	B	19.1	B	0.3	No
	PM	29.8	C	33.7	C	3.9	No
Genesee Avenue / University City High School[4]	AM	31.5	C	31.5	C	0.0	No
	PM	7.2	A	7.2	A	0.0	No
Genesee Avenue / Governor Drive[4,5]	AM	75.9	E	77.1	E	1.2	No
	PM	61.9	E	63.0	E	1.1	No
Genesee Avenue / SR 52 WB Ramps[4]	AM	2.8	A	2.8	A	0.0	No
	PM	5.6	A	5.6	B	0.0	No

Source: LLG 2007

1 Average delay expressed in seconds per vehicle.
2 Level of Service.
3 Sig? = Significant project impacts based on Significance Criteria.
4 Planned roadway improvements for the horizon year (with and without project scenarios).
5 Near-term mitigation assumed in place (with and without project scenarios).

SIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 < 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
> 80.1	F

UNSIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 < 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
> 50.1	F

Significance of Impacts

In comparing the Maximum Residential scenario to the proposed project, it can be concluded that similar significant cumulative impacts for the intersections and roadways in the study area would be expected, with the exception of additional impacts to La Jolla Village Drive between Genesee Avenue and Executive Way that would result from implementation of the Maximum Residential scenario.

Since the volumes for all other possible land use scenarios shown in Table 5.3-20 are lower than the Maximum Residential scenario, similar results for the intersection and street segment analyses are expected for the other project alternatives. Therefore, mitigation would be expected to cover all other land use scenarios identified in Table 5.3-20.

Significant, and in some cases unmitigable, impacts would occur in the near term and horizon year for the proposed CPA. The proposed CPA would result in an increase over the community-wide trip

generation allocations in both the near term and horizon year, the impacts of which are described under Issues 1 and 2. With respect to the NUC FBA, significant project impacts to roadway segments along Genesee Avenue would occur in the horizon year.

Mitigation Measures, Monitoring and Reporting Program

As indicated in the discussion above, the significant impacts for the proposed CPA represented by the Maximum Residential Alternative are the same as those calculated for the proposed project, with the exception of La Jolla Village Drive between Genesee Avenue and Executive Way. Mitigation for the Maximum Residential land use scenario would be the same as for the proposed project noted above in Issue 1, with the exception of this street segment. Additional mitigation for this segment is identified in the TIS; however, the applicant has indicated that it would not implement roadway widening along La Jolla Village Drive that would conflict with the community character and urban design policies of the Community Plan (see Figure 5.3-5).

Issue 3: **Would the proposal result in effects on existing parking or cause an increased demand for off-site parking?**

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses although the analysis remains herein for information purposes.

Reconfiguration of the existing parking supply would be made necessary by the physical expansion of the proposed project into the existing surface parking area. The proposed parking system would include more structured parking and parking below retail stores. In order to determine the parking actually needed to accommodate the peak demand for the proposed development, the parking demand patterns of the various land uses on site were investigated as part of the Shared Parking Assessment prepared by Fehr & Peers/Kaku Associates (Appendix B). This assessment utilizes the Urban Land Institute (ULI) National Rates. The ULI sponsored a national study in 1984 that established a basic methodology for analyzing parking demand in mixed-use developments and developed averages for parking rates by land use. The national study was updated by ULI in 2005, and the analysis prepared by Fehr & Peers/Kaku Associates utilizes the latest data from that 2005 update.

The updated ULI Shared Parking Analysis refined the parking rates and published them in the *Shared Parking, Second Edition* report (ULI 2005). Table 5.3-24, *Summary of Parking Ratios*, contains the updated peak parking ratios used in the Shared Parking Assessment for the proposed project. These parking ratios were used as the base rates and were further adjusted for transit mode spilt and internal capture discussed in more detail in Appendix B.

Table 5.3-24
SUMMARY OF PARKING RATIOS

Land Use	Weekday Ratio	Weekend Ratio
Retail	4.0 sp/1000 sf	4.5 sp/1,000 sf
Restaurant		
Fine Dining	18 sp/1000 sf	20 sp/1000 sf
Family Dining	10.5 sp/1000 sf	15 sp/1000 sf
Cinema	0.20 sp/seat	0.27 sp/seat
Hotel	1.25 sp/room	1.08 sp/room
Office	3.75 sp/1,000 sf	0.38 sp/1,000 sf
Residential Tenant	1.7 sp/du	1.7 sp/du
Residential Guest	0.15 sp/du	0.15 sp/du

Source: Fehr & Peers/Kaku Associates 2007

The shared parking analysis was based on the peak parking demand, which is seasonal (i.e., primarily in November and December during the holiday season) and was determined to occur on a Saturday in December given the large percentage of retail uses proposed, regardless of the various land use scenarios (see discussion above under Issue 2). Table 5.3-25, *Peak Parking Demand*, presents a summary of the shared parking analysis for each of the land use scenario, including the proposed project. As shown in Table 5.3-25, the peak parking demand for the proposed project would range from 7,230 to 8,129 spaces, depending on the day of the week (i.e., weekday versus weekend). The recommended parking supply for the proposed project would be 7,163 on-site parking spaces to meet the needs of December weekday customer and employee parking (plus a 5 percent oversupply) plus 425 reserved spaces for tenants of the residential units. In addition, the proposed project would require an off-site employee parking program that would serve 541 employee spaces during weekends in December.

The weekday parking demand peaks between 5,985 and 7,333 spaces and weekend parking demand peaks between 6,599 and 8,358 spaces, depending on the land use scenario constructed. If the Maximum Residential land use scenario is implemented, the weekday parking demand would be between 7,251 and 8358 spaces, which is the maximum spaces anticipated under the Master PDP (see Table 5.3-25).

The recommended on-site parking supply would be sufficient to meet project parking demands during all hours of the day, no matter the land use scenario, with the exception of weekend days in December, when the proposed project would operate an off-site employee parking program. The center currently operates an off-site employee-parking program during peak shopping periods. An off-site shared parking program is currently in place at the shopping center during peak periods, with 250 to 300

vehicles served. Expansion of the center would require moderate expansion of the existing program to meet projected parking demands, as discussed below under mitigation.

Table 5.3-25
PEAK PARKING DEMAND

Land Use Scenario	Peak Day Parking Demand			
	Weekday	Saturday	Employee	Reserved
Proposed Project	7,230	8,129	1,480	425
Proposed Project (No Transit)	7,333	8,249	1,577	425
Maximum Residential	7,251	8,358	1,367	1,233
Maximum Hotel	6,060	6,842	1,330	0
Maximum Office	6,059	6,750	1,304	0
All Uses	5,985	6,599	1,198	425
No Hotel	6,544	7,189	1,221	850
No Office #1	6,239	6,970	1,259	510
No Office #2	6,491	7,188	1,199	1,037

Source: Fehr & Peers and Kaku Associates 2007

To ensure that the recommended parking supply would adequately address parking needs, parking occupancy counts to monitor parking usage/availability would be performed during peak periods, as outlined under Mitigation Measure 5.3-21 below.

Significance of Impacts

The recommended parking supply, in concert with an off-site shared parking program for center employees, would be sufficient to meet parking demands for the expanded center during all hours of the day under any of the land use scenarios proposed by the Master PDP, with the exception of weekend days in December. Impacts to the parking supply would be considered significant and mitigated to below a level of significance through the expansion of the existing off-site employee program during the month of December and incorporation of a monitoring program to ensure parking needs for the expanded center would be met.

Mitigation Measures, Monitoring and Reporting Program

MM 5.3-~~20~~15 The project applicant shall expand the existing off-site employee program during the month of December to serve up to 550 vehicles.

MM 5.3-~~21~~16 The applicant shall provide and maintain a current Parking Management Plan and perform an annual parking study satisfactory to the City Engineer. The updated Parking Management Plan and annual parking study shall provide additional parking opportunities in the event that the parking demand exceeds the parking supply. In the event that the parking demand exceeds the parking supply, the applicant shall provide adequate parking for the site and implement these alternatives prior to the next annual parking study, satisfactory to the City Engineer. In addition, no later than October 31 of each year, the applicant shall provide evidence of a shared parking agreement for holiday overflow parking, satisfactory to the City Engineer.

Issue 4: **Would the proposal conflict with adopted policies, plans or programs supporting alternative transportation modes (e.g., bus turnouts, bicycle racks, transit support facilities, pedestrian access)?**

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses although the analysis remains herein for information purposes.

The Travel Demand Management (TDM) program for the proposed project is designed to reduce trips to/from the proposed project. The intent of the TDM program is to ensure that necessary applicability, enforcement, incentives, and monitoring components are- in place, and to ensure the effectiveness of the specific TDM strategies or programs for the proposed project. TDM programs provide a range of effectiveness in terms of estimated vehicle trip reductions. The strategies outlined below would be applied to the proposed project. Additional measures can be considered but are not proposed at this time. The applicant proposes to incorporate the following TDM measures into the Master PDP:

- Regional Transit Center Land Reservation and Project Integration
- Construct Enhanced Bus Component of Transit Center
- On-Site Employee Transit Subsidy
- Bicycle Parking Spaces and Lockers
- On-Site Child Care/Cafeteria/Deli/Gym/Fitness Facilities for Employees
- Off-Site Employee Parking Program During Holidays and Special Events
- Carpool/Vanpool Reserved Parking Spaces

- Transit/Carpool/Vanpool Information Kiosks
- Appointed Ridership Coordination

In addition to the above TDM measures, the project would expand and enhance the existing bus transit center. The new transit center would be located on site and integrated with the surrounding development to better promote transit ridership and synergy between the transit station and the proposed project. Despite no transit reductions applied to the project's trip generation, as discussed previously, a measurable reduction in project trips is expected. As well, the future Mid-Coast Light Rail (LRT) transit station would be constructed adjacent to the new transit center, which would provide further transit opportunities.

The proposed project would be consistent with the goals of the applicable City planning documents and SANDAG's Transit First Program (TFP) by enhancing and providing for bicycle, pedestrian and expanded bus transportation facilities. As part of the proposed project, a multi-modal transit center is near the intersection of Genesee Avenue and Esplanade Court. The project applicant would relocate and expand the existing transit center. The multi-modal transit center would accommodate all existing and future modes of public transportation in the UTC area to enhance the movement of people within and outside the community, including facilities for eleven or more buses, Super Loop, and future BRT and/or LRT services along Genesee Avenue. Several of the traffic mitigation measures noted above would allow SANDAG to facilitate the implementation of Super Loop and BRT priorities in the community.

Implementation of the new multi-modal transit center is part of the TFP in conjunction with SANDAG's transit studies for the area. The TFP is an investment by the transit authority to make transit fast, affordable, convenient, and appealing to users, therefore making it a "first choice" in transportation. The TFP intends to change the behavior of drivers by making its mass transit vehicles attractive because of their speed of service, convenience and affordability. The proposed transit center would facilitate SANDAG's and MTS's plans for the North University City area.

As discussed in Section 5.1, *Land Use*, the following are the kind of amenities that the center currently provides and would continue to provide in the future: open-space facilities with resting areas, benches, planters, vegetation, elevators, escalators, bicycle facilities, pedestrian ramps, wide pedestrian pathways, pedestrian bridges and shaded rest stops. The center itself provides numerous pedestrians paths from the retail/entertainment businesses to the parking lots/garages, transit center and surrounding community. The internal pedestrian linkages would connect to buildings and parking facilities as well as to the external pedestrian network via attractive and safe paths. These pedestrian paths would be wide (no less than six feet wide as specified in the *University Community Plan*), fully accessible and would comply with the federal American's with Disabilities Act (ADA) and California Title 24 requirements.

Pedestrian access across Genesee Avenue would be provided by an existing pedestrian bridge north of Esplanade Court. Improvements to or future replacement of this bridge as part of the SANDAG LRT project would allow for connection and integration of the proposed project and the on-site transit center with the surround area and would allow pedestrians on the west side of Genesee Avenue direct access to the center without walking through the parking lot. The existing pedestrian bridge across La Jolla Village Drive connecting to community paths would continue to provide similar access. Improved pedestrian access across La Jolla Village Drive near Towne Centre Drive would occur in the future as part of NUC-42 when the applicant redevelops the La Jolla Terrace district. An at-grade pedestrian walkway currently connects the center to the residential area to the southeast. Access across Towne Centre Drive would be by crosswalk at a newly signalized intersection with the south UTC driveway. From the crosswalk, pedestrians would access the center via continuous pedestrian paths.

Significance of Impacts

The proposed project would be consistent with adopted policies, plans and programs supporting alternative transportation modes in both the near term and horizon year. As a result, no significant impacts to alternative transportation modes would occur as a result of the proposed project.

Mitigation Measures, Monitoring and Reporting Program

No significant impacts have been identified; therefore, no mitigation measures are required.

Issue 5: Would the proposal result in an increase in traffic hazards to motor vehicles, pedestrians and bicycles?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses although the analysis remains herein for information purposes.

The proposed project includes numerous roadway, mass transit, pedestrian and bicycle facilities improvements, all of which are consistent with the planned facilities within the *University Community Plan*. Road improvement designs are proposed to be consistent with the City of San Diego Transportation Department standards and criteria, specifically with regard to intersection standards, pedestrian crossings, and bicycle lane widths and striping.

Significance of Impacts

No significant impacts to existing or planned transportation systems are anticipated.

Mitigation Measures, Monitoring and Reporting Program

No significant impacts have been identified; therefore, no mitigation measures are required.

Issue 6: What direct and/or cumulative traffic impacts would the project have on the existing and planned community and regional circulation networks?

Refer to the impact discussion contained under Issue 1. In addition, cumulative impacts are addressed in Section 7.0, *Cumulative Impacts*, of the report.

Significance of Impacts

See discussion for Issue 1.

Mitigation Measures, Monitoring and Reporting Program

See discussion for Issue 1.

5.4 AIR QUALITY

This section presents the results of an assessment of potential air quality impacts associated with the UTC Revitalization project. The evaluation is based on analysis and calculations provided by Scientific Resources Associated (SRA 2007; SRA 2008) and addresses the potential for air emissions associated with the phased construction and long-term operation of the proposed project. An estimation of the potential greenhouse gas impacts associated with the proposed project is also provided in this section. Emissions calculations supporting this analysis are contained in Appendix C of this report.

5.4.1 Existing Conditions

Meteorology/Climate

The climate of the proposed project site, and all of San Diego, is dominated by a semi-permanent high pressure cell over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality.

Subsidence inversions occur during the warmer months as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone, commonly known as smog.

Regulatory Setting

Air quality is defined by ambient air concentrations of specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Areas that do not meet the NAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant.

The USEPA established NAAQS for the protection of human health and the public welfare for six criteria pollutants: carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O_3), particulates with an aerodynamic diameter less than 10 microns (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead (Pb). Ozone is not emitted directly, but is formed from a complex set of reactions involving O_3 precursors such as nitrogen oxides (NO_x) and reactive organic compounds (ROC). Regulations relating to O_3, therefore, address emissions of NO_x and ROC.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The California Air Resources Board (ARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. On April 15, 2004, the SDAB was classified as a basic nonattainment area for the 8-hour NAAQS for O_3. On July 15, 2005, the USEPA rescinded the 1-hour NAAQS for O_3. The SDAB is an attainment area for the NAAQS for all other criteria pollutants. The SDAB is currently classified as a nonattainment area under the CAAQS for O_3, PM_{10}, and $PM_{2.5}$.

The following specific descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on EPA (2005a) and CARB (2001).

Ozone. O_3 is considered a photochemical oxidant, which is a chemical that is formed when VOCs and NOx, both by-products of combustion, react in the presence of ultraviolet light. O_3 is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to O_3.

Carbon Monoxide. CO is a product of combustion, and the main source of CO in the SCAB is from motor vehicle exhaust. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease, and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion, and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. Respirable particulate matter, or PM_{10}, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine

particulate matter, or $PM_{2.5}$, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in this size range has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, combustion, tire and brake wear, construction operations and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs.

Sulfur dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Pb in the atmosphere occurs as particulate matter. Pb has historically been emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Pb has the potential to cause gastrointestinal, central nervous system, kidney and blood diseases upon prolonged exposure. Pb is also classified as a probable human carcinogen.

Sulfates. Sulfates are the fully oxidized ionic form of sulfur. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO_2) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The CARB's sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide. H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the standard would result in exposure to a very disagreeable odor. In 1984, a CARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance.

Vinyl Chloride. Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants and hazardous waste sites, due to microbial

breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer, in humans.

The ARB is the state regulatory agency with authority to enforce regulations to achieve and maintain the NAAQS and CAAQS. The ARB is responsible for the development, adoption and enforcement of the state's motor vehicle emissions program, as well as the adoption of the CAAQS. The ARB also reviews operations and programs of the local air districts, and requires each air district that is considered a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS. The local air district has the primary responsibility for the development and implementation of rules and regulations that reflect the strategy to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. In San Diego County, the attainment planning process is embodied in a regional air quality management plan developed jointly by the San Diego Air Pollution Control District (APCD) and the San Diego Association of Governments (SANDAG). In San Diego, the APCD is responsible for attainment planning required by the California Clean Air Act. The APCD develops the Regional Air Quality Strategy (RAQS) to address strategies within the SDAB to attain and maintain air quality standards. The local RAQS, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to the ARB, which develops the California State Implementation Plan (SIP). The SIP was adopted by the ARB in 1994, and forwarded to the USEPA for their approval. After considerable analysis and debate, particularly regarding airsheds with the worst smog problems, the USEPA finally approved the SIP in mid-1996. Since that date, SIP revisions have been developed and approved for nonattainment areas throughout the state; however, the SIP for the SDAB was not required to be updated as it has achieved its attainment goals in a timely manner. The APCD and the ARB are in the process of revising the RAQS and SIP to address the newly adopted 8-hour ozone standard. It is anticipated that the revised SIP will be submitted to the California USEPA for approval in 2007. Table 5.4-1, *Ambient Air Quality Standards*, presents a summary of the ambient air quality standards adopted by the federal and California CAAs.

Background Air Quality

The APCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring stations to the proposed project site are the Del Mar-Mira Costa College station, which is located approximately 8 miles north of the project site (O_3 only); the Kearny Mesa station, which is located approximately 6 miles to the east-southeast of the project site (PM_{10}, NO_2, and CO); and the downtown San Diego station, which is located approximately 13 miles south of the site (the closest monitoring station that measures CO and SO_2). Because of its coastal location similar to the project

site, the Del Mar monitoring station ozone levels are considered most representative of the site. Also, because of its proximity to the site and location in an area that is less congested than downtown San Diego, the Kearny Mesa monitoring station concentrations for all other pollutants except SO_2 are considered most representative of the project site. The downtown San Diego monitoring station is the nearest location to the project site where SO_2 concentrations are monitored. Ambient concentrations of pollutants from these stations over the last three years are presented in Table 5.4-2, *Ambient Background Concentrations*.

The 1-hour federal O_3 standard was only exceeded once at the Del Mar-Mira Costa College monitoring station during the time period from 2004 through 2006. The 8-hour federal O_3 standard was exceeded three times in 2004. The data from the monitoring stations indicate that air quality is in attainment of all other federal standards. The Kearny Mesa monitoring station measured exceedances of the annual California PM_{10} standard during the period from 2004 to 2006.

Because of the location of the monitoring station in downtown San Diego where traffic congestion is prevalent, the station has higher concentrations of CO than are measured elsewhere in San Diego County and the background data are not likely to be representative of background ambient CO concentrations in the project vicinity. Use of downtown San Diego background data will therefore provide a conservative estimate of background CO concentrations.

Existing Greenhouse Gas Emissions

Current sources of greenhouse gas emissions at UTC are attributable to combustion of fossil fuels, including emissions from energy use, water consumption and emissions from motor vehicles. Living vegetation at the center stores carbon; thus carbon sinks would include vegetation used in landscaping.

Emissions of greenhouse gases from the existing retail development were estimated based on the energy use per square foot as reported in the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993). The energy use was estimated to be 13.55 kWh per square foot of retail space based on current estimated energy use. Emissions of greenhouse gases were calculated based on the California Climate Action Registry General Reporting Protocol (CCAP 2007). Emissions associated with natural gas usage were calculated based on the SCAQMD's estimated natural gas usage per square foot (SCAQMD 1993).

Table 5.4-1
AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS		NATIONAL STANDARDS		
		Concentration	Measurement Method	Primary	Secondary	Measurement Method
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	--	--	Ethylene Chemiluminescence
	8 hour	0.070 ppm (137 µg/m³)		0.08 ppm (157 µg/m³)	0.08 ppm (157 µg/m³)	
Carbon Monoxide (CO)	8 hours	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m³)	None	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm (56 µg/m³)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m³)	0.053 ppm (100 µg/m³)	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (338 µg/m³)		--	--	
Sulfur Dioxide (SO_2)	Annual Average	--	Ultraviolet Fluorescence	0.03 ppm (80 µg/m³)	--	Pararosaniline
	24 hours	0.04 ppm (105 µg/m³)		0.14 ppm (365 µg/m³)	--	
	3 hours	--		--	0.5 ppm (1300 µg/m³)	
	1 hour	0.25 ppm (655 µg/m³)		--	--	
Respirable Particulate Matter (PM_{10})	24 hours	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	150 µg/m³	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		--	--	
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	15 µg/m³	15 µg/m³	Inertial Separation and Gravimetric Analysis
	24 hours	--		35 µg/m³	35 µg/m³	
Sulfates	24 hours	25 µg/m³	Ion Chromatography	--	--	--
Lead (Pb)	30-day Average	1.5 µg/m³	Atomic Absorption	--	--	Atomic Absorption
	Calendar Quarter	--		1.5 µg/m³	1.5 µg/m³	
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence	--	--	--
Vinyl Chloride	24 hours	0.010 ppm (26 µg/m³)	Gas Chromatography	--	--	--

Source: California Air Resources Board 2007
ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter

Table 5.4-2
AMBIENT BACKGROUND CONCENTRATIONS
($\mu g/m^3$)

Pollutant	Averaging Time	2004	2005	2006	Most Stringent Ambient Air Quality Standard	Monitoring Station
O_3	8 hour	0.095	0.070	0.074	0.070	Del Mar
	1 hour	0.129	0.082	0.086	0.09	Del Mar
PM_{10}	Annual	24.4 $\mu g/m^3$	22.3 $\mu g/m^3$	21.6 $\mu g/m^3$	20 $\mu g/m^3$	Kearny Mesa
	24 hour	44 $\mu g/m^3$	44 $\mu g/m^3$	34 $\mu g/m^3$	50 $\mu g/m^3$	Kearny Mesa
$PM_{2.5}$	Annual	10.9 $\mu g/m^3$	10.2 $\mu g/m^3$	11.0 $\mu g/m^3$	12 $\mu g/m^3$	Kearny Mesa
	24 hour	28.5 $\mu g/m^3$	29.0 $\mu g/m^3$	26.3 $\mu g/m^3$	35 $\mu g/m^3$	Kearny Mesa
NO_2	Annual	0.017	0.017	0.017	0.030	Kearny Mesa
	1 hour	0.085	0.076	0.091	0.18	Kearny Mesa
CO	8 hour	4.04	4.7	3.3	9.0	San Diego
	1 hour	4.9	6.4	5.3	20	San Diego
SO_2	Annual	0.004	0.002	0.004	0.030	San Diego
	24 hour	0.008	0.007	0.009	0.04	San Diego
	3 hour	0.020	0.019	0.030	0.05[1]	San Diego
	1 hour	0.042	0.040	0.034	0.25	San Diego

[1]Secondary NAAQS
Source: www.arb.ca.gov (all pollutants except 1-hour CO and 1-hour and 3-hour SO_2)
www.epa.gov/air/data/monvals.html (1-hour CO, 1-hour and 3-hour SO_2)

Water Consumption

The provision of potable water to consumers requires large amounts of energy associated with five stages: (1) source and conveyance, (2) treatment, (3) distribution, (4) end use and (5) wastewater treatment. Based on information for current water demands, the existing center uses approximately ~~109,307~~137,281 gallons per day (gpd), of which ~~54,000~~40,578 gpd is attributable to irrigation. The California Energy Commission (2006b) estimates that in southern California water usage will have an embodied energy of 12,700 kWh per million gallons. CO_2 emissions were calculated on the maximum basis of ~~109,307~~137,281 gpd of water usage (~~39.90~~50.1 million gallons annually) at 12,700 kWh per million gallons. Emissions were estimated based on emission factors from the California Climate Action Registry General Reporting Protocol (CCAP 2007).

Vehicle Use

Mobile source greenhouse gas emissions were estimated based on the existing ADTs from the TIS (LLG 2007). Average trip lengths were estimated based on the URBEMIS2002 model outputs, which indicated that the average trip length associated with the UTC project would be 7.58 miles. Emissions of CO_2 and CH_4 were obtained from the EMFAC2007 model. Emissions of N_2O were

estimated based on EPA emission factors, assuming vehicles, on average, would meet Tier 0 emission standards. Based on the existing ADT of 29,500, emissions of CO_2-equivalent greenhouse gases were estimated at ~~44,392~~ 44,258 tons per year.

Table 5.4-3 summarizes the estimated operational greenhouse gas emissions associated with the existing shopping center.

Table 5.4-3
SUMMARY OF ESTIMATED EXISTING GREENHOUSE GAS EMISSIONS

Emission Source	Annual Emissions (tons/year)		
	CO_2	N_2O	CH_4
Electricity Use Emissions	5,248	0.02	0.04
Natural Gas Use Emissions	902	0.002	0.10
Water Consumption Emissions	~~185~~222	~~0.0009~~0.00102	~~0.002~~0.00185
Vehicular Use Emissions	44,258	3.43	2.98
Global Warming Potential Factor	1	310	21
CO_2 Equivalent Emissions[1]	~~50,593~~50,630	1,070	66
TOTAL CO_2 Equivalent Emissions[2]	51,~~729~~767		

Source: SRA ~~2007~~2008

[1] CO_2 Equivalent Emissions equals the sum of Energy Use Emissions plus Water Consumption Emissions plus Vehicular Use Emissions, multiplied by the Global Warming Potential Factor.

[2] Total CO_2 Equivalent Emissions equals the sum of the CO_2 Equivalent Emissions of CO_2, N_2O and CH_4.

5.4.2 Impacts

Significance Criteria

In accordance with the City of San Diego's Significance Determination Thresholds (City of San Diego 2007a), the City has set forth Air Quality Significance Criteria Thresholds to assess the potential for a project to cause a significant impact on the ambient air quality. The City has established both general thresholds (consistent with CEQA guidance for significant impacts) and specific emission thresholds that are derived from the San Diego Air Pollution Control District's regulations. According to the City's guidelines, a project may have a significant air quality environmental impact if it could:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)

- Expose sensitive receptors (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) to substantial pollutant concentrations, including air toxins such as diesel particulates
- Create objectionable odors affecting a substantial number of people
- Release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.

The City's emission-specific thresholds are derived from the San Diego APCD's Regulation II, Rule 20.2, Table 20-2-1, *Air Quality Impact Analysis (AQIA) Trigger Levels*. These thresholds are applicable as a screening criterion for potential significance. The thresholds for ROG and $PM_{2.5}$ are based on significance criteria from the South Coast Air Quality Management District (SCAQMD 1993). The emission thresholds are shown in Table 5.4-4, *San Diego Air Pollution Control District Pollutant Threshold for Stationary Sources*.

Table 5.4-4
SAN DIEGO AIR POLLUTION CONTROL DISTRICT POLLUTANT THRESHOLDS FOR STATIONARY SOURCES

Pollutant	Lb/hr	Lb/day	Tons/yr
Carbon Monoxide (CO)	100	550	100
Oxides of Nitrogen (NOx)	25	250	40
Particulate Matter (PM_{10})	-	100	15
Fine Particulate Matter ($PM_{2.5}$)	-	55	10
Oxides of Sulfur (SOx)	25	250	40
Lead and Lead Compounds	-	3.2	0.6
Reactive Organic Gases (ROG)	-	137	15

Source: City of San Diego 2007a.

The following sections present an evaluation of the potential for significant impacts associated with project construction and operational emissions.

Guidelines for the determination of significance are not currently provided for climate change in CEQA. In addition, the Environmental Checklist Form in Appendix G of the State CEQA Guidelines does not address this topic. Project compliance with provisions of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, is used as a guideline for this analysis. A discussion of AB 32 is provided under Issue 4 in this section.

Issue 1: Would the proposal exceed 100 pounds per day of respirable particulate matter (PM_{10}) or 55 pounds per day of fine particulate matter ($PM_{2.5}$)?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

Respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) are generally emitted during construction due to emissions of dust and exhaust associated with heavy equipment and grading operations. The City of San Diego's Significance Determination Thresholds (2007a) indicate that the threshold of significance for PM_{10} emissions is 100 pounds per day, and the threshold of significance for $PM_{2.5}$ emissions is 55 pounds per day based on SCAQMD guidance (SCAQMD 2006).

As discussed in Section 3.5, *Construction Schedule*, of this EIR construction would occur in two main phases; the first phase would involve redevelopment and expansion of retail space in the Palm Passage, University Central, La Jolla Terrace and Nobel Heights districts and construction of community/recreational uses in Torrey Trail district, while the second phase would involve development of the residential developments in the Towne Centre Gardens and Nobel Heights districts. Construction phase 1 is divided into three sequences. The first sequence would entail the fitout of the vacant Robinson's May building, demolition of the automotive repair shop in the Nobel Heights district, relocation of the bus transit center to Genesee Avenue and construction of a parking structure in the La Jolla Terrace district east of the Sears Department store. The second sequence would involve demolition of the existing Macy's department store, construction of the new Nordstrom and Macy's department stores, retail space and a parking structure and construction and relocation of site utilities. The third sequence would involve the demolition of the existing Nordstrom department store and existing Nordstrom parking structure in the Palm Passage district, construction of the central retail area, parking structures and the residential component of University Central district. It is anticipated that maximum daily emissions of PM_{10} would be highest during demolition and grading activities during construction phase 1. Phase 1 construction emissions represent the peak (or worst-case) construction scenario projected for the proposed project; Phase 2 construction would result in less construction emissions since it would involve a much smaller development phase. Regardless of which Master PDP land use scenario is constructed, short-term particulate matter emissions sources would be similar in magnitude since the same portion of the site would be redeveloped. The primary sources of particulate matter include the operation of heavy construction equipment, demolition and grading activities and soil export. The emissions factors and assumptions used in estimating PM_{10} and $PM_{2.5}$ emissions for the worst-case construction phase for the UTC Revitalization project are detailed below.

Emissions of particulate matter from Phase 1 construction equipment were estimated through the use of emission factors from the South Coast Air Quality Management District's (SCAQMD's) CEQA Air Quality Handbook (SCAQMD 1993) and the ARB's OFFROAD model emission factors for construction equipment (ARB 2004).

Emissions associated with demolition were estimated based on the SCAQMD's emission factor of 0.00042 pounds (lbs) PM_{10} per cubic foot of building demolished. Phase 1 construction would involve demolition of approximately 566,132 square feet of the existing shopping center and 20 acres of parking lot area to accommodate the proposed retail expansion. It was assumed that the height of the demolished structures in the outer area would be approximately 30 feet on average, and that the height of the demolished structures within the mall itself would be 60 feet. As a worst-case scenario, it was assumed that one-third of the square footage of structure demolition could occur during a one-month period. It was also assumed that one-third of the 20 acres of parking lot demolition would occur during a one-month period. For conservative purposes it was assumed that both parking lot and building demolition would occur simultaneously. It was assumed that heavy construction equipment would be operating at the UTC site for eight hours per day, six days per week (26 days per month) during the 3-year Phase 1 construction period.

Based on the total structure and parking lot demolition, emissions associated with demolition activities are estimated as shown below:

- 871,200 cubic feet of pavement demolition – 14.07 lbs/day
- 11,333,858 cubic feet of structure demolition – 183.08 lbs/day

It is estimated that a maximum of five acres would be disturbed through grading on any given day during Phase 1 construction. Fugitive dust emissions associated with grading were estimated using the emission factor of 10 lbs/acre/day recommended in the URBEMIS2002 model. It is also estimated that a maximum of six pieces of heavy construction equipment would be on site at any time. For the purpose of evaluating heavy equipment emissions, it was assumed that the construction equipment shown in Table 5.4-5, *Daily Construction Equipment, Phase 1* would be the maximum number of pieces operating on any given day at the site for the first construction phase. It was further estimated that during grading, approximately 50 heavy-duty truck trips would be required to transport export material off site, and an additional 100 trips per day would be required for concrete trucks during concrete pour activities.

It was assumed that a total of 185 workers per day would be required for grading and concrete pour activities. For conservative purposes, these activities were assumed to occur simultaneously.

Particulate emissions from materials handling associated with soil export from excavations were estimated using the methodology recommended in the SCAQMD CEQA Air Quality Handbook. To estimate emissions from excavation of on-site materials and handling of exported materials, the SCAQMD's emission factor for materials handling, as shown below:

- 0.02205 lbs PM_{10}/ton of material handled per day for excavation and loading
- 0.009075 lbs PM_{10}/ton of material handled per day for dumping and spreading

Table 5.4-5
DAILY CONSTRUCTION EQUIPMENT, PHASE 1

Equipment Type	Estimated Number On Site
Dozer	1
Loaders	1
Crane	1
Scraper	1
Paver	1
Roller compactor	1
Concrete/Delivery vehicles	100 per day
Haul Trucks	50 per day

For the purpose of estimating PM_{10} emissions from material handling, the amount of exported material for Phase 1 was estimated at 167,000 cubic yards; this material was assumed to be exported over a six-month period during Phase 1.

Assuming that approximately 190,000 cubic yards of material would be excavated, of which 167,000 cubic yards of material would be exported off site, and that each cubic yard would weigh 1.6 tons, a total of 304,000 tons of material would be excavated and 267,200 tons would be exported. Assuming excavation and export requires six months, the estimated PM_{10} emissions per day would be approximately 50.71 lbs/day. To estimate the number of haul truck trips, it was assumed that each haul truck could transport 20 cubic yards of exported material offsite to a disposal location that would be approximately 5 miles from the site for a round trip distance of 10 miles. It was assumed that up to 50 truck trips per day would be required to transport exported material off site.

$PM_{2.5}$ emission factors are not readily available for all emission sources. Accordingly, $PM_{2.5}$ emissions were estimated based on the Final Methodology to Calculate $PM_{2.5}$ and $PM_{2.5}$ CEQA Significance Thresholds (SCAQMD 2006). Accordingly to the methodology, the $PM_{2.5}$ fraction of fugitive dust from construction is 21 percent, and the $PM_{2.5}$ fraction of combustion PM_{10} is 99 percent. For off-road equipment exhaust, however, the SCAQMD recommends a $PM_{2.5}$ fraction of 89 percent. These fractions were applied to fugitive dust, on-road vehicular exhaust and off-road heavy equipment exhaust, respectively.

Based on the above assumptions for project construction, Table 5.4-6, *Emissions of PM_{10} and $PM_{2.5}$ During Phase 1 Construction Prior to Mitigation*, presents an estimate of the PM_{10} emissions during Phase 1. As shown in the table, the unmitigated emissions of PM_{10} and $PM_{2.5}$ would be above the City of San Diego's significance criterion of 100 lbs/day and 55 lbs/day, respectively, resulting in significant impacts. In addition to respirable dust, larger particle nuisance dust would also be temporarily

produced during construction. A discussion of nuisance dust impacts is presented under Issue 4 in Section 5.10, *Construction Effects*, of this report.

Table 5.4-6
EMISSIONS OF PM_{10} AND $PM_{2.5}$ DURING PHASE 1 CONSTRUCTION PRIOR TO MITIGATION

Emission Source	Estimated Emissions, lbs/day	
	PM_{10}	$PM_{2.5}$
Fugitive Dust – Demolition	183.08	38.45
Fugitive Dust – Grading	50.00	10.50
Fugitive Dust – Materials Handling	50.71	10.65
Heavy Equipment Exhaust	3.813	3.39
Construction Vehicles	5.42	5.37
TOTAL	**293.03**	**68.36**
Significant?	Yes	Yes

Source: SRA 2007.

Phase 2 involves the construction of up to 725 residential units on site. It is anticipated that Phase 2 would require little or no demolition work; although it is possible that Phase 2 may involve demolition of the existing Sears parking structure, but demolition would not be at the level required under Phase 1.

Based on similar construction activities, Phase 2 would produce emissions during grading, foundation excavation, building construction, architectural coatings application, paving and landscaping. It is anticipated that approximately 453,000 cubic yards of material would be excavated and approximately 425,000 cubic yards of material would be exported off site. If the export site is not within the UTC development, the exported material would be hauled off site for disposal. It is anticipated that maximum daily emissions of PM_{10} and $PM_{2.5}$ would be highest during excavation activities for construction Phase 2.

Emissions of particulate matter from Phase 2 construction equipment were estimated using the same methodology as used for Phase 1.

It is estimated that a maximum of three acres would be disturbed through grading on any given day during Phase 2 construction. Fugitive dust emissions associated with grading were estimated using the emission factor of 10 lbs/acre/day recommended in the URBEMIS2002 model. To estimate emissions from excavation of on-site materials and handling of exported materials, the SCAQMD's emission factor for materials handling, as shown below:

- 0.02205 lbs PM_{10}/ton of material handled per day for excavation and loading
- 0.009075 lbs PM_{10}/ton of material handled per day for dumping and spreading

Assuming excavation and export requires six months, the estimated PM_{10} emissions per day would be approximately 123.07 lbs/day. To estimate the number of haul truck trips, it was assumed that each haul truck could transport 20 cubic yards of exported material off site to a disposal location that would be approximately 5 miles from the site for a round trip distance of 10 miles. It was assumed that up to 120 truck trips per day would be required to transport exported material off site.

It is also estimated that a maximum of six pieces of heavy construction equipment would be on site at any time. For the purpose of evaluating heavy equipment emissions, it was assumed that the construction equipment shown in Table 5.4-7, *Daily Construction Equipment, Phase 2*, would represent the maximum number of pieces operating on any given day at the site for the second construction phase. It was also assumed that a total of 80 workers per day would be required for grading and excavation activities.

Based on the above Phase 2 assumptions for project construction, Table 5.4-8, *Emissions of PM_{10} and $PM_{2.5}$ During Phase 2 Construction Prior to Mitigation*, presents an estimate of the PM_{10} and $PM_{2.5}$ emissions during Phase 2. As shown in the table, the unmitigated emissions of PM_{10} would be above the City of San Diego's significance criterion of 100 lbs/day, resulting in significant impacts. In addition to respirable dust, larger particle nuisance dust would also be temporarily produced during construction. A discussion of nuisance dust impacts is presented under Issue 4 in Section 5.10, *Construction Effects*, of this report.

Table 5.4-7
DAILY CONSTRUCTION EQUIPMENT, PHASE 2

Equipment Type	Estimated Number On Site
Excavators	2
Loaders	1
Other Construction Equipment	2
Tractor/Backhoe/Loader	1
Haul Trucks	120 per day

Table 5.4-8
EMISSIONS OF PM_{10} AND $PM_{2.5}$ DURING PHASE 2 CONSTRUCTION PRIOR TO MITIGATION

Emission Source	Estimated Emissions, lbs/day	
	PM_{10}	$PM_{2.5}$
Fugitive Dust – Grading	30.00	6.30
Fugitive Dust – Materials Handling	123.07	25.84
Heavy Equipment Exhaust	3.096	2.76
Construction Vehicles	2.63	2.60
TOTAL	**158.80**	**37.50**
Significant?	Yes	No

Source: SRA 2007

Operational Emissions

A discussion of operational emissions of PM_{10} and PM_{25} can be found under Issue 2 below.

Significance of Impacts

Emissions of respirable dust during the first and second phases of project construction would be above the City of San Diego's significance criterion for PM_{10} of 100 lbs/day, resulting in a significant impact on air quality. Emissions of fine particulate during the first phase of project construction would be above the City of San Diego's significance criterion for $PM_{2.5}$ of 55 lbs/day as well. Simultaneous construction of Phases 1 and 2 under the maximum construction scenario would exceed significance thresholds for both PM_{10} and $PM_{2.5}$.

Mitigation Measures, Monitoring and Reporting Program

The project's emissions of PM_{10} and $PM_{2.5}$ would be significant; therefore, standard dust control measures would be implemented by the project applicant during construction to reduce the amount of fugitive dust generated during project build out. The respective control efficiencies are noted following each measure:

MM 5.4-1 Multiple applications of water during grading between dozer/scraper passes – 34-68 percent

MM 5.4-2 Paving, chip sealing or chemical stabilization of internal roadways after completion of grading – 92.5 percent

MM 5.4-3 Use of sweepers or water trucks to remove "track-out" at any point of public street access – 25-60 percent

MM 5.4-4 Termination of grading if winds exceed 25 miles per hour – not quantified

MM 5.4-5 Stabilization of dirt storage piles by chemical binders, tarps, fencing or other erosion control – 30-65 percent

MM 5.4-6 Application of water every 4 hours during structure demolition – 36 percent

The above mitigation measures apply to the control of fugitive dust during construction. Based on the combined control efficiencies associated with the above mitigation measures, it was conservatively assumed that implementation of mitigation would control fugitive dust emissions from grading by 50 percent, and from materials handling by 50 percent. It was assumed that demolition emissions would be controlled by 36 percent. Particulate emissions from other sources would not be affected by the control measures listed above. Emission estimates for Phase 1 retail construction, with implementation of the above-listed construction mitigation measures, are shown in Table 5.4-9, *Estimated Emissions of PM_{10} and $PM_{2.5}$ During Phase 1 Construction After Mitigation*.

Table 5.4-9
ESTIMATED EMISSIONS OF PM_{10} AND $PM_{2.5}$ DURING PHASE 1 CONSTRUCTION AFTER MITIGATION

Emission Source	Estimated Emissions, lbs/day	
	PM_{10}	$PM_{2.5}$
Demolition	117.17	24.61
Fugitive Dust - Grading	24.50	5.15
Fugitive Dust – Materials Handling	25.36	5.32
Heavy Equipment Exhaust	3.813	3.39
Construction Vehicles	5.42	5.37
TOTAL	176.26	43.84
Significant?	Yes	No

Source: SRA 2007.

Emission estimates for Phase 2 construction, with implementation of the above-listed construction mitigation measures, are shown in Table 5.4-10, *Estimated Emissions of PM_{10} and $PM_{2.5}$ During Phase 2 Construction After Mitigation*.

Table 5.4-10
ESTIMATED EMISSIONS OF PM_{10} AND $PM_{2.5}$ DURING PHASE 2 CONSTRUCTION AFTER MITIGATION

Emission Source	Estimated Emissions, lbs/day	
	PM_{10}	$PM_{2.5}$
Fugitive Dust – Grading	15.00	3.15
Fugitive Dust – Materials Handling	61.54	12.92
Heavy Equipment Exhaust	3.096	2.76
Construction Vehicles	2.63	2.60
TOTAL	**82.27**	**21.43**
Significant?	No	No

Source: SRA 2007.

With implementation of the above fugitive dust mitigation measures, emissions of particulate matter from Phase 1 construction would remain above 100 lbs/day of PM_{10} under the maximum daily construction scenario. As shown in Table 5.4-11, *Estimated Emissions of PM_{10} and $PM_{2.5}$ – Simultaneous Phase 1 and Phase 2 Construction After Mitigation,* if both phases of construction were to occur concurrently, the combined impacts would be above the thresholds for PM_{10} and $PM_{2.5}$ after mitigation is applied. Therefore, the impact to ambient air quality would remain significant and unmitigable during construction as discussed further under Issue 2. Significant impacts, however, would be temporary in nature and would not occur once operations begin.

Table 5.4-11
ESTIMATED EMISSIONS OF PM_{10} AND $PM_{2.5}$ SIMULTANEOUS PHASE 1 AND PHASE 2 CONSTRUCTION AFTER MITIGATION

Emission Source	Estimated Emissions, lbs/day	
	PM_{10}	$PM_{2.5}$
Demolition	117.17	24.61
Fugitive Dust – Grading	39.50	8.30
Fugitive Dust – Materials Handling	86.90	18.25
Heavy Equipment Exhaust	6.909	6.15
Construction Vehicles	8.05	7.97
TOTAL	**258.53**	**65.28**
Significant?	Yes	Yes

Source: SRA 2007.

Issue 2: Would the proposal result in air emissions that would substantially deteriorate ambient air quality, including the exposure of sensitive receptors to substantial pollutant concentrations?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein; however, the worst-case scenario is the Maximum Residential, as discussed below. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

Evaluation of potential air quality impacts on sensitive receptors includes evaluation of the gaseous emissions from both the construction of the project and operation of the project following construction. Both construction and operational emissions were evaluated based on the City of San Diego's significance criteria discussed above. Sensitive receptors considered in this analysis include residents, workers, a day care facility, a hotel and other uses in the project vicinity.

Construction Emissions

Phase 1 and Phase 2 construction (gaseous or non-particulate matter) emissions were estimated through the use of factors from the California Air Resources Board's OFFROAD model (ARB 2004), with supplemental information on average horsepower rating and load factors from SCAQMD's CEQA Air Quality Handbook (SCAQMD 1993) and the USEPA's factors for construction equipment. As a worst-case scenario, the analysis assumed that heavy construction equipment would be operating at the site for eight hours per day, six days per week during this approximately three-year construction phase. The specific construction equipment assumptions are discussed under Issue 1.

In addition to emissions from construction heavy equipment and vehicles, emissions from application of architectural coatings were calculated assuming that 10 percent of the retail area, and 10 percent of the total residences, would be painted in a given month.

A summary of the gaseous emissions associated with Phase 1 construction is presented in Table 5.4-12, *Phase 1 Estimated Construction Emissions – Unmitigated.* Particulate emissions are discussed under Issue 1 of this section and nuisance dust is discussed under Issue 4 of Section 5.10, *Construction Effects*. As shown in Table 5.4-12, emissions of all criteria pollutants are below the daily significance thresholds.

Table 5.4-12
PHASE 1
ESTIMATED CONSTRUCTION EMISSIONS – UNMITIGATED
(lbs/day)

Emission Source	ROC	NOx	CO	SOx
Heavy Equipment Exhaust	6.53	89.05	21.71	0.06
Construction Truck Traffic	7.82	94.98	39.41	0.11
Worker Travel – Vehicle Emissions	2.96	5.67	65.61	0.07
Architectural Coatings	60.47	-	-	-
TOTAL	**77.78**	**189.70**	**126.73**	**0.24**
Significance Criteria	137	250	550	250
Significant?	No	No	No	No

Source: SRA 2007.

A summary of the gaseous emissions associated with Phase 2 construction is presented in Table 5.4-13, *Phase 2 Estimated Construction Emissions – Unmitigated.* Particulate emissions are discussed under Issue 1 of this section and nuisance dust is discussed under Issue 4 of Section 5.10, *Construction Effects.* As shown in Table 5.4-13, all criteria pollutants are below the significance thresholds.

As shown in Table 5.4-14, *Estimated Construction Emissions – Unmitigated – Simultaneous Phase 1 and Phase 2*, if both phases of construction were to occur concurrently, the combined impacts would be above the thresholds for NOx emissions. Therefore, the impact to ambient air quality would be significant and unmitigable should a worst-case construction scenario occur. Significant impacts, however, would be temporary in nature and not a long-term source of air pollution.

Table 5.4-13
PHASE 2
ESTIMATED CONSTRUCTION EMISSIONS – UNMITIGATED
(lbs/day)

Emission Source	ROC	NOx	CO	SOx
Heavy Equipment Exhaust	5.11	55.76	19.49	0.03
Construction Truck Traffic	3.85	46.72	19.39	0.05
Worker Travel – Vehicle Emissions	1.28	2.45	28.37	0.03
Architectural Coatings	15.63	-	-	-
TOTAL	**25.87**	**104.94**	**67.25**	**0.11**
Significance Criteria	137	250	550	250
Significant?	No	No	No	No

Source: SRA 2007.

Table 5.4-14
ESTIMATED CONSTRUCTION EMISSIONS – UNMITIGATED SIMULTANEOUS PHASE 1 AND PHASE 2
(lbs/day)

Emission Source	ROC	NOx	CO	SOx
Heavy Equipment Exhaust	11.64	144.81	41.20	0.09
Construction Truck Traffic	11.67	141.70	58.80	0.35
Worker Travel – Vehicle Emissions	4.21	8.06	93.27	0.10
Architectural Coatings	76.10	-	-	-
TOTAL	103.62	294.57	193.27	0.54
Significance Criteria	137	250	550	250
Significant?	No	Yes	No	No

Source: SRA 2007.

During construction, ~~E~~emissions of PM_{10} are also attributable mainly to demolition, grading, and excavation, with a minor contribution from ~~and~~ traffic sources (refer to quantities in Tables 5.4-6 and 5.4-8). As the projected PM_{10} emissions are above the City of San Diego's significance threshold (see discussion under Issue 1), the likelihood for adverse impacts on ambient air quality was evaluated through air dispersion modeling using the ISCST3 model. Construction PM_{10} emissions were distributed among seven area sources located on the site where construction activities would be occurring. A receptor grid was located a minimum of 50 meters from the site boundary, extending out to 1,000 meters from the site. Modeling was conducted to assess 24-hour PM_{10} impacts associated with mitigated PM_{10} emissions for Phase 1 construction (see Table 5.4-12), Phase 2 construction (see Table 5.4-13), and simultaneous construction of Phases 1 and 2 (see Table 5.4-14). Maximum 24-hour PM_{10} impacts were predicted to be 76.633 micrograms per cubic meter ($\mu g/m^3$) during Phase 1 at a location to the northwest of the project site just outside the site boundary; the area to the northwest of the project site is developed with commercial land uses. This concentration of emissions would be above the CAAQS of 50 $\mu g/m^3$ for PM_{10} and, when added to the maximum background concentration measured at the Kearny Mesa monitoring station of 44 $\mu g/m^3$, would exceed the CAAQS on a worst-case background day. The impact of emissions of PM_{10} during Phase 1 construction would remain significant and unmitigated.

Maximum 24-hour PM_{10} impacts during Phase 2 construction were predicted using the same methodology to be 26.921 $\mu g/m^3$ at a location just north of the UTC project boundary on La Jolla Village Drive. This impact would be below the CAAQS for PM_{10}. When added to the maximum background concentration measured at the Kearny Mesa monitoring station of 44 $\mu g/m^3$, the potential exists that impacts plus background on a maximum background day could exceed the CAAQS of 50 $\mu g/m^3$ during Phase 2 construction.

During simultaneous construction of Phases 1 and 2, maximum 24-hour PM_{10} impacts were predicted to be 112.384 $\mu g/m^3$ at a location just north of the UTC project site on La Jolla Village Drive. This

impact would be above the CAAQS of 50 $\mu g/m^3$ for PM_{10}. When added to the maximum background concentration measured at the Kearny Mesa monitoring station of 44 $\mu g/m^3$, the potential exists that impacts plus background on a maximum background day could exceed both the CAAQS of 50 $\mu g/m^3$ and the NAAQS of 150 $\mu g/m^3$ during simultaneous Phase 1 and Phase 2 construction on a worst-case background day. Impacts associated with PM_{10} during construction would be significant and unmitigated.

~~using the Caltrans Interim PM_{10} Qualitative PM_{10} Hot Spot Guidance (Caltrans 2002b). The SDAB is considered an attainment area for the NAAQS for PM_{10}, and there are no unusual sources of PM_{10} associated with the project, such as high levels of diesel truck traffic. Therefore, in accordance with Caltrans guidance, no quantitative analysis is required. According to the guidance, areas that have not had any federal PM_{10} violations, or have not measured PM_{10} concentrations that are within 80 percent of the PM_{10} NAAQS are unlikely to cause an exceedance of the federal PM_{10} standard. As noted in Table 5.4-2, the existing ambient air quality has been below the annual NAAQS for PM_{10}, and no exceedances of the 24-hour NAAQS standard were reported during the period from 2004 through 2006. Thus, it is unlikely that the project-related traffic would cause an exceedance of the state or federal standards for particulate matter. The project features mass transit, pedestrian walkways, bike racks and other design features intended to reduce traffic, to the extent possible. No additional measures to reduce PM_{10} from traffic have been promulgated as the SDAB has not been required to develop a SIP for PM_{10} because the area is in attainment of the federal standard. Therefore, because project emissions would not exceed the significance thresholds, project operational emissions of PM_{10} would not cause a substantial deterioration of ambient air quality.~~

In addition to evaluating heavy equipment exhaust emissions, diesel exhaust was also evaluated. Diesel exhaust particulate matter is known to the State of California to contain carcinogenic compounds. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure. Diesel exhaust particulate matter would be periodically emitted during the approximately 36 months of construction assumed for Phase 1 due to the operation of heavy equipment used in the construction process and the approximately 12 months of construction assumed for Phase 2. The majority of construction activity would occur in the northern half of the project site, a good distance away from nearby sensitive receptors, such as residences, on site day care center and nearby hotel (i.e., Embassy Suites). However, diesel exhaust from construction equipment would be temporary in nature with no potential for a chronic lifetime exposure (i.e., 70 years or more) of sensitive receptors resulting in an adverse health impact. This conclusion was quantitatively confirmed in the Air Toxics Health Risk Assessment (SRA 2008) prepared as part of the Final EIR (see Appendix K).

Operational Emissions

Operation of the UTC Revitalization project would produce pollutant emissions from the development itself, including indirect emissions from area sources, such as natural gas combustion, operation of the

central plant, electricity production and landscaping, produced by the commercial retail space, office space, residences, and hotel space, as well as direct emissions associated with vehicular traffic sources. The following analysis does not take into account emissions reductions associated with the expansion of transit operations on site and the implementation of the UTC green program which could involve the generation of power on site (using solar) and the integration of high-performance architecture and low energy systems.

As discussed above, the Master PDP presents variable development programs that included the original project and seven other land use scenarios. The Traffic Impact Study – University Towne Center Renovation Project (Linscott, Law & Greenspan [LLG] 2007) evaluated average daily trips (ADTs) and peak hour traffic generation for all of the land use scenarios as discussed in Section 5.3, *Transportation/Circulation*.

Considering the various land use scenarios in the Master PDP, the proposed project (i.e., 750,000 sf of retail and 250 residential units) would generate the most weekday ADTs (17,800). The Maximum Residential scenario would generate less ADT than the proposed project but higher peak hour traffic volumes than the proposed project during the less critical movements of the day (i.e., AM out and PM in) as shown in Table 5.3-23. Emissions associated with Master PDP operations at full buildout were estimated using the URBEMIS2002 model for each land use scenario to identify which would result in the highest (or worst-case) emissions. Emissions were estimated based on 2020 emission factors for full buildout. Default assumptions in the URBEMIS model, including emissions due to energy use and area sources, were used to estimate operational emissions, except that it was assumed that architectural coatings would meet low-VOC standards and that silt loading on paved roadways would be 0.03 grams per square meter per USEPA defaults. Emissions from consumer products usage were estimated based on the 2020 emission projections for San Diego County from the ARB Almanac (ARB 2006) of 22.6 tons per day ROG, and 2020 population projections for San Diego County of 3.8 million. Trip generation rates from the Traffic Impact Study were used in the URBEMIS model.

$PM_{2.5}$ emission factors are not readily available for all emission sources. Accordingly, $PM_{2.5}$ emissions were estimated based on the Final Methodology to Calculate $PM_{2.5}$ and $PM_{2.5}$ CEQA Significance Thresholds (SCAQMD 2006) as discussed above under Issue 1.

Based on the results of the URBEMIS model runs, the Maximum Residential land use scenario, wherein 610,000 sf of retail and 725 dwelling units would be constructed, would result in the highest (or worst-case) operational emissions of all of the land use scenarios proposed in the Master PDP. While the Maximum Residential land use scenario would result in slightly lower ADT than the proposed project, the URBEMIS model calculations take into account trip variability in trip lengths for residential versus retail trips, and increased energy use, landscaping emissions, and consumer product emissions from residential land uses in comparison with retail uses. Thus, the URBEMIS model predicts higher emissions for this scenario. Emissions from the Maximum Residential land use scenario were therefore evaluated in the operational emissions table for conservative purposes. Table

5.4-15, *Master Plan Operational Emissions - Buildout Scenario (2020) Prior to Mitigation - Under the Maximum Residential Land Use Scenario*, presents a summary of the estimated maximum operational emissions associated with full buildout of the proposed project under the Maximum Residential land use scenario.

As shown in Table 5.4-15, emissions of CO are predicted to be above the City of San Diego's significance thresholds for short-term (daily) and long-term (annual) averaging period. Emissions of ROC are predicted to be above the City of San Diego's significance thresholds for the long-term (annual) averaging period. Emissions of PM_{10} in the long-term period would also exceed the significance threshold. Emissions of $PM_{2.5}$ would be less than significant in the short- and long-term period (see Table 5.4-15).

If construction for Phases 1 and 2 did not overlap, but the retail expansion would become operational while Phase 2 construction occurs, a combination of operational and construction emissions could result. To address the potential for simultaneous construction activities and operational emissions, it was assumed, as a worst-case, that Phase 1 operations could occur at the same time as finishing of construction on Phase 2. Table 5.4-16, *Maximum Emission Scenario – Simultaneous Phase 2 Construction and Phase 1 Master Plan Operational Emissions Under the Maximum Residential Land Use Scenario*, presents a summary of emissions associated with simultaneous construction of Phase 2 and operations.

Table 5.4-15
MASTER PLAN OPERATIONAL EMISSIONS
BUILDOUT SCENARIO (2020) PRIOR TO MITIGATION
UNDER THE MAXIMUM RESIDENTIAL LAND USE SCENARIO[1]

Emission Source	ROC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Summer Day (lbs/day)						
Area Source Emissions						
Natural Gas Combustion	0.85	11.36	7.28	0.00	0.02	0.02
Landscaping	0.18	0.02	1.26	0.00	0.00	0.00
Consumer Products	28.62	-	-	-	-	-
Architectural Coatings	5.05	-	-	-	-	-
Traffic Sources	52.76	71.80	616.36	1.12	96.95	28.46
TOTAL	87.46	83.18	624.90	1.12	96.97	28.48
Significance Criteria	*137*	*250*	*550*	*250*	*100*	*55*
Significant?	*No*	*No*	*Yes*	*No*	*No*	*No*

Table 5.4-15 (cont.)
MASTER PLAN OPERATIONAL EMISSIONS
BUILDOUT SCENARIO (2020) PRIOR TO MITIGATION
Under the Maximum Residential Land Use Scenario1

Emission Source	ROC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Winter Day (lbs/day)						
Area Source Emissions						
Natural Gas Combustion	0.85	11.36	7.28	0.00	0.02	0.02
Consumer Products	28.62	-	-	-	-	-
Architectural Coatings	5.05	-	-	-	-	-
Traffic Sources	60.15	92.02	690.44	1.12	96.95	28.46
TOTAL	**94.67**	**103.38**	**697.72**	**1.12**	**96.97**	**28.48**
Significance Criteria	*137*	*250*	*550*	*250*	*100*	*55*
Significant?	*No*	*No*	*Yes*	*No*	*No*	*No*
Long-term (tons/year)						
Area Source Emissions						
Natural Gas Combustion	0.16	2.07	1.33	0.00	0.00	0.00
Landscaping	0.03	0.00	0.23	0.00	0.00	0.00
Consumer Products	5.22	-	-	-	-	-
Architectural Coatings	0.67	-	-	-	-	-
Traffic Sources	10.08	14.33	116.99	0.20	17.69	5.20
TOTAL	**16.16**	**16.40**	**118.55**	**0.20**	**17.69**	**5.20**
Significance Criteria	*15*	*40*	*100*	*40*	*15*	*10*
Significant?	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*

Source: SRA 2007.
[1] The Maximum Residential land use scenario represents the worst-case scenario of the UTC Revitalization Project with regard to operational emissions.

As shown in Table 5.4-16, should construction of Phase 2 occur simultaneously with Phase 1 operations, emissions would be above the significance thresholds for both CO and PM_{10}. Should this scenario occur, however, a significant but temporary impact to the ambient air quality would result due to the combined construction and operational emissions of CO and PM_{10}.

The primary source of CO, ROC, and PM_{10} emissions would be operational traffic, although construction activities would also temporarily contribute CO, ROCs, and PM_{10}.

Table 5.4-16
MAXIMUM EMISSION SCENARIO – SIMULTANEOUS PHASE 2 CONSTRUCTION AND PHASE 1 MASTER PLAN OPERATIONAL EMISSIONS UNDER THE MAXIMUM RESIDENTIAL LAND USE SCENARIO[1]

Emission Source	ROC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Summer Day (lbs/day)						
Construction Emissions	25.87	104.94	67.25	0.11	82.27	21.43
Operational Emissions	87.46	83.18	624.90	1.12	96.97	28.48
TOTAL	**113.33**	**188.12**	**692.15**	**1.23**	**179.24**	**49.91**
Significance Criteria	*137*	*250*	*550*	*250*	*100*	*55*
Significant?	*No*	*No*	*Yes*	*No*	*Yes*	*No*
Maximum Winter Day (lbs/day)						
Construction Emissions	25.87	104.94	67.25	0.11	82.27	21.43
Operational Emissions	94.67	103.38	697.72	1.12	96.97	28.48
TOTAL	**120.54**	**208.32**	**764.97**	**1.23**	**179.24**	**49.91**
Significance Criteria	*137*	*250*	*550*	*250*	*100*	*55*
Significant?	*No*	*No*	*Yes*	*No*	*Yes*	*No*

As noted in the Regulatory Setting discussion, ROC is an ozone precursor, and the SDAB is currently classified as a basic non-attainment area for the 8-hour NAAQS for ozone and a non-attainment area for the CAAQS for ozone. As noted above in Table 5.4-8, the major source of new ROC emissions would be traffic, with additional emissions associated with consumer product use in residential land uses. The Development Intensity Table in the *University Community Plan*, upon which regional traffic emissions are based, currently allows the UTC property to generate approximately 29,650 daily trips (assuming 1,061,400 square feet of retail space) (LLG 2007). As discussed in Section 5.3, *Transportation/Circulation*, of this report, the proposed Community Plan Amendment (CPA) would produce an additional 17,800 average daily trips, which is not consistent with the total traffic accounted for in the Community Plan. The proposed project is not consistent with the population and traffic projections contained in the SIP, which are based on the existing Community Plan. Thus, the project emissions based on the worst-case land use scenario would be above the City's significance thresholds for ROC and, therefore, result in a significant impact.

Because the project's emissions of CO would be above the City of San Diego's significance thresholds, additional analysis was conducted to evaluate the potential for CO "hot spots" to occur on a localized level at intersections where the level of service (LOS) would be degraded due to project traffic. The Traffic Impact Study (LLG 2007) evaluated whether or not there would be a decrease in the LOS at the intersections affected by project-related traffic. The potential for CO "hot spots" was evaluated based on the results of the traffic analysis. According to the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol (Caltrans 1998), CO "hot spots" are typically evaluated when (1) the LOS

of an intersection or roadway decreases to a LOS E or worse; (2) signalization and/or channelization is added to an intersection; and (3) sensitive receptors such as residences, commercial developments, schools, hospitals, etc. are located in the vicinity of the affected intersection or roadway segment. The traffic analysis evaluated whether a decrease in the LOS at intersections and roadway segments in the project vicinity would occur during the morning (AM) peak and afternoon (PM) peak periods.

The traffic evaluation addressed 55 intersections and 55 roadway segments for Existing, Near Term, and Horizon Year conditions. Because traffic congestion is driven by intersection performance in the project vicinity, the CO "hot spots" analysis focused on intersections where project-related traffic would decrease the LOS to E or worse. For those intersections where the LOS is already F, it was assumed that, while CO "hot spots" may be possible, they would not be attributable to project-related traffic but would be considered a cumulative impact, as discussed in Section 7.0, *Cumulative Impacts*, of this report. The intersections evaluated for CO "hot spot" potential, along with the LOS at each intersection for the With and Without Project scenarios in the Near Term and Horizon Year, are presented in Table 5.4-17, *Intersections Evaluated for CO "Hot Spots" – Summary of Intersection Level of Service*. A more complete summary of intersection LOS is provided in Section 5.3, *Transportation/Circulation*, of this report.

To evaluate the potential for CO "hot spots" for those intersections where the Traffic Impact Analysis predicted significant impacts due to project-related traffic, the CALINE4 model was used to evaluate the specific potential for CO "hot spots."

While the intersection of La Jolla Village Drive and Interstate 805 (I-805) southbound ramps was projected to have a significant increase in delay, there are no sensitive receptors in the immediate vicinity of the ramp. Therefore, no further analysis for CO "hot spots" was conducted for this intersection.

As discussed above, it is likely that CO concentrations measured at the downtown San Diego ambient monitoring station overestimate the background CO concentrations in the project vicinity. For conservative purposes, the highest 1-hour and 8-hour background levels for the period from 2004 through 2006 were used to represent background CO concentrations near the project. The highest 1-hour background CO concentration was 6.4 parts per million (ppm) and the highest 8-hour background CO concentration was 4.7 ppm.

Table 5.4-17
INTERSECTIONS EVALUATED FOR CO "HOT SPOTS"
SUMMARY OF INTERSECTION LEVEL OF SERVICE

Intersection	Near Term Without Project		Near Term With Project		Horizon Without Project		Horizon With Project	
	AM	PM	AM	PM	AM	PM	AM	PM
La Jolla Village Drive/Regents Road	D	E	D	F	E	F	E	F
La Jolla Village Drive/Genesee Avenue	F	E	F	E	F	F	F	F
La Jolla Village Drive/Towne Centre Drive	F	E	F	E	F	F	F	F
La Jolla Village Drive/Executive Way	C	D	C	D	E	E	E	E
Nobel Drive/Lombard Place	A	B	A	F	A	D	B	F
Towne Centre Drive/UTC North Driveway	F	E	F	F	F	F	F	F
Towne Centre Drive/UTC South Driveway	F	E	F	F	F	F	F	F
Genesee Drive/Governor Avenue	E	F	F	F	E	F	E	F
La Jolla Village Drive/I-805 SB ramps	C	A	C	A	E	D	E	D
Nobel Drive/Genesee Drive	D	D	D	D	D	E	D	E
Decoro Street/Genesee Avenue	D	E	D	E	E	F	E	F

Source: LLG 2007.

To evaluate the potential for CO "hot spots" for the intersections for which the Traffic Impact Study projected a significant impact, the procedures recommended in the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol, Appendix B, were followed. The potential for CO "hot spots" was evaluated using the CALINE4 model. Inputs to the CALINE4 model were obtained from the Traffic Impact Study (LLG 2007). In accordance with the guidance in the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol, Appendix B, receptors were conservatively located in the vicinity of the intersection outside of the mixing zone for the roadways.

The CALINE4 model was run with worst-case meteorology, and 8-hour CO concentrations were estimated by multiplying the 1-hour concentration by a persistence factor of 0.7. The CALINE4 model outputs are provided in Appendix C of this report. The model results are presented in Table 5.4-18, *CALINE4 Model Results*. As shown in Table 5.4-18, all predicted CO concentrations are well below the CAAQS and NAAQS for CO. As discussed in Section 5.3, the Maximum Residential land use scenario would generate less ADT than the proposed project but higher peak hour traffic volumes than the proposed project during the less critical movements of the day. The TIS analyzed potential traffic impacts for the horizon year for the Maximum Residential land use scenario. Traffic at affected intersections was not appreciably different from traffic projected for the proposed project; projected traffic counts for individual turning movements were no more than 20 percent higher for the Maximum Residential land use scenario than for the proposed project. Even if predicted CO concentrations attributable to traffic at these intersections (minus background) were 20 percent higher

than predicted in Table 5.4-18, no exceedances of the CO standard would result from project-related traffic. Therefore, no exceedances of the CO standard are predicted, and the project would not cause or contribute to a violation of an air quality standard for CO.

Table 5.4-18
CALINE4 MODEL RESULTS
CO CONCENTRATION PLUS BACKGROUND, PPM

Intersection	Near Term Without Project		Near Term With Project		Horizon Without Project		Horizon With Project	
1-hour CO impact plus background								
	am	*pm*	*am*	*pm*	*am*	*pm*	*am*	*pm*
La Jolla Village Drive/Regents Road	8.1	8.1	8.1	8.1	N/A	N/A	N/A	N/A
La Jolla Village Drive/Genesee Avenue	7.9	8.1	8.0	8.0	N/A	N/A	N/A	N/A
La Jolla Village Drive/Towne Centre Drive	8.3	8.2	8.2	8.3	N/A	N/A	N/A	N/A
La Jolla Village Drive/Executive Way	N/A	N/A	N/A	N/A	7.2	7.2	7.2	7.2
Nobel Drive/Lombard Place	7.0	7.2	7.0	7.4	N/A	N/A	N/A	N/A
Towne Centre Drive/UTC North Driveway	7.2	7.1	7.3	7.2	N/A	N/A	N/A	N/A
Towne Centre Drive/UTC South Driveway	7.1	7.1	7.2	7.3	N/A	N/A	N/A	N/A
Genesee Drive/Governor Avenue	7.8	8.0	7.9	8.0	N/A	N/A	N/A	N/A
Nobel Drive/Genesee Drive	N/A	N/A	N/A	N/A	7.1	7.2	7.1	7.3
Decoro Street/Genesee Drive	N/A	N/A	N/A	N/A	7.0	7.0	7.0	7.0
8-hour CO impact plus background								
La Jolla Village Drive/Regents Road	5.89		5.89		N/A		N/A	
La Jolla Village Drive/Genesee Avenue	5.89		5.82		N/A		N/A	
La Jolla Village Drive/Towne Centre Drive	5.96		6.33		N/A		N/A	
La Jolla Village Drive/Executive Way	N/A		N/A		5.26		5.26	

Table 5.4-18 (cont.)
CALINE4 MODEL RESULTS
CO CONCENTRATION PLUS BACKGROUND, PPM

8-hour CO impact plus background (cont.)				
Intersection	Near Term Without Project	Near Term With Project	Horizon Without Project	Horizon With Project
Nobel Drive/Lombard Place	5.26	5.40	N/A	N/A
Towne Centre Drive/UTC North Driveway	5.26	5.33	N/A	N/A
Towne Centre Drive/UTC South Driveway	5.19	5.33	N/A	N/A
Genesee Drive/Governor Avenue	5.82	5.82	N/A	N/A
Nobel Drive/Genesee Drive	N/A	N/A	5.26	5.33
Decoro Street/Genesee Drive	N/A	N/A	5.12	5.12

Source: SRA 2007

Operational emissions of PM_{10}, which are above the significance threshold for the annual averaging period, are mainly attributable to road dust on public roads. Road dust emissions are based on vehicle miles traveled and vehicle weights, which are based on assumptions regarding trip lengths and vehicle distributions for land uses specified in the model. Road dust emissions are also based on estimated silt loading for roadways. EPA recommends an estimated silt loading of 0.03 grams per square meter for urban surface streets with greater than 10,000 ADT. This baseline factor takes into account the use of anti-skid abrasives, which are used in areas where road snow and ice is a problem, but are not used in San Diego. Furthermore, for limited-access roads, EPA recommends a silt loading factor of 0.015 grams per square meter; for the UTC project, some proportion of the trips associated with the project would occur on Interstate 805 or Interstate 5, which are limited-access roadways and would be anticipated to have a lower silt loading and thus lower road dust emissions.

Road dust emissions calculated by the URBEMIS Model are based on the assumption that trip lengths are as high as 10.8 miles (for work-home or commercial commute trips). In contrast, SANDAG estimates that average trip lengths in the San Diego region are 5.8 miles (http://www.sandag.org/?subclassid=10&fuseaction=home.subclasshome); therefore, the URBEMIS assumed trip length likely overestimates the vehicle miles traveled, and therefore, the road dust emissions, associated with project-related traffic. The road dust contribution would be a regional effect rather than a localize effect.

To estimate emissions in the immediate vicinity of the UTC site, the trip length on the roadways within the project area identified in the Traffic Impact Study (LLG 2008) was estimated. According to the Traffic Impact Study, the study area for this project encompasses areas of anticipated impact related to the project. Based on the study area, the longest local trip length within the study area would be approximately 2.5 miles (from UTC to Camino Santa Fe and Miramar Road, or from UTC to State Route 52). Based on this trip length, annual PM_{10} emissions in the project study area would be 5.90 tons per year, which is below the significance threshold of 15 tons per year. Thus localized PM_{10} emissions due to road dust in the immediate vicinity of the project site would be less than significant.

Using the Caltrans Interim PM_{10} Qualitative PM_{10} Hot Spot Guidance (Caltrans 2002b). The SDAB is considered an attainment area for the NAAQS for PM_{10}, and there are no unusual sources of PM_{10} associated with the project, such as high levels of diesel truck traffic. Therefore, in accordance with Caltrans guidance, no quantitative analysis is required. According to the guidance, areas that have not had any federal PM_{10} violations, or have not measured PM_{10} concentrations that are within 80 percent of the PM_{10} NAAQS are unlikely to cause an exceedance of the federal PM_{10} standard. Upon comparison of monitoring data contained in Table 5.4-2 with the NAAQS of 150 $\mu g/m^3$, the existing ambient air quality in the project area has been below the annual NAAQS for PM_{10}, and no exceedances were reported during the period from 2004 through 2006. Thus, it is unlikely that the project-related traffic would directly cause an exceedance of the state or federal standards for particulate matter. The project features mass transit, pedestrian walkways, bike racks and other design features described in the TDM intended to reduce traffic and vehicle miles travelled, to the extent possible. No additional measures to reduce PM_{10} from traffic have been promulgated as the SDAB has not been required to develop a SIP for PM_{10} because the area is in attainment of the federal standard.~~and there is no mitigation measure that would reduce these emissions to less than the significance threshold. Project impacts to ambient air quality levels of PM_{10} would remain significant.~~

Significance of Impacts

Construction Emissions

Emissions of criteria pollutants (i.e., ROC, CO_2, ~~$PM_{2.5}$~~, and SOx), with the exception of NOx~~and~~, PM_{10} and $PM_{2.5}$ (as analyzed under Issue 1), during construction of the proposed project would be below the City's significance criteria and result in a less than significant impact to air quality. Because of their temporary nature and non-chronic exposure period, impacts to public health associated with diesel exhaust particulate matter produced during construction would be less than significant.

Operational Emissions

Operational emissions of NOx, SOx, and $PM_{2.5}$ were predicted to be below the significance thresholds for both short-term (daily) and long-term (annual) averaging periods upon buildout of proposed

project. Operational emissions of CO would be above the significance thresholds for short-term and long-term averaging periods; however, CO "hot spots" modeling demonstrated that these emissions would not cause or contribute to a violation of ambient air quality standards. Therefore, operational project impacts to CO would not be considered a significant impact on ambient air quality.

~~As discussed above, o~~Operational emissions of PM_{10} are above the long-term significance thresholds due mainly to road dust, and impacts to local air quality would be less than significant, while impacts to regional air quality would remain significant after mitigation is implemented.

Emissions of ROC, an ozone precursor, would be above the significance threshold for the annual averaging period; however, with improvements in vehicle emission standards and phase out of older vehicles, emissions would decrease with time and ultimately be below the quantitative threshold. To demonstrate this anticipated reduction, Table 5.4-19 presents a calculation of ROC emissions based on an operational year of 2025 for the proposed project. By 2025, emissions would be below the significance thresholds (see Table 5.4-19). In addition, the project would feature a transit ~~improvements~~station, TDMs ~~-~~and enhanced pedestrian connections in and around the UTC area that would reduce vehicle miles traveled for employees and residents, thus reducing the project's contribution to ozone precursors. Project impacts to ambient air quality levels of ozone would be considered significant on a cumulative level because the additional traffic allowed by the proposed CPA would exceed traffic assumptions in the SIP for O_3 (see additional discussion under Issue 3).

Table 5.4-19
MASTER PLAN OPERATIONAL EMISSIONS
BUILDOUT SCENARIO (2025) PRIOR TO MITIGATION
UNDER THE MAXIMUM RESIDENTIAL LAND USE SCENARIO[1]

Emission Source	ROC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Summer Day (lbs/day)						
Area Source Emissions						
Natural Gas Combustion	0.85	11.36	7.28	0.00	0.02	0.02
Landscaping	0.18	0.02	1.26	0.00	0.00	0.00
Consumer Products	28.62	-	-	-	-	-
Architectural Coatings	5.05	-	-	-	-	-
Traffic Sources	38.02	48.46	424.51	1.12	96.77	28.41
TOTAL	72.72	59.84	433.05	1.12	96.79	28.43
Significance Criteria	*137*	*250*	*550*	*250*	*100*	*55*
Significant?	*No*	*No*	*No*	*No*	*No*	*No*

Table 5.4-19 (cont.)
MASTER PLAN OPERATIONAL EMISSIONS
BUILDOUT SCENARIO (2025) PRIOR TO MITIGATION
UNDER THE MAXIMUM RESIDENTIAL LAND USE SCENARIO[1]

Emission Source	ROC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Winter Day (lbs/day)						
Area Source Emissions						
Natural Gas Combustion	0.85	11.36	7.28	0.00	0.02	0.02
Consumer Products	28.62	-	-	-	-	-
Architectural Coatings	5.05	-	-	-	-	-
Traffic Sources	42.79	61.98	461.95	1.12	96.77	28.41
TOTAL	77.31	73.34	469.23	1.12	96.79	28.43
Significance Criteria	*137*	*250*	*550*	*250*	*100*	*55*
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Long-term (tons/year)						
Area Source Emissions						
Natural Gas Combustion	0.16	2.07	1.33	0.00	0.00	0.00
Landscaping	0.03	0.00	0.23	0.00	0.00	0.00
Consumer Products	5.22	-	-	-	-	-
Architectural Coatings	0.67	-	-	-	-	-
Traffic Sources	7.23	9.67	79.75	0.20	17.66	5.19
TOTAL	13.31	11.74	81.31	0.20	17.66	5.19
Significance Criteria	*15*	*40*	*100*	*40*	*15*	*10*
Significant?	*No*	*No*	*No*	*No*	*Yes*	*No*

Source: SRA 2008.
[1] The Maximum Residential land use scenario represents the worst-case scenario of the UTC Revitalization Project with regard to operational emissions.

Mitigation Measures, Monitoring and Reporting Program

Construction Emissions

With the exception of NOx, ~~and~~ PM_{10}, and $PM_{2.5}$, ~~which were addressed under Issue 1 above,~~ no significant construction-related impacts associated with emissions of other criteria pollutants (ROC, CO, ~~$PM_{2.5}$,~~ and SOx) to ambient air quality are identified. Mitigation measures to reduce fugitive dust (PM_{10} and $PM_{2.5}$,) were discussed under Issue 1 and impacts would be significant and unmitigable after mitigation is implemented. ~~There~~ Although temporary in nature, there are no feasible mitigation measures to reduce NOx during the simultaneous construction of Phases 1 ~~construction~~ and 2 to a level that is less than significant without staggering the construction schedules for the two development phases~~, but this impact would be temporary~~. However, construction equipment emissions reductions are anticipated over time as cleaner engines are introduced and low NOx emissions standards promulgated by CARB are phased in for off-road construction equipment starting

in 2010. Therefore, to reduce emissions of NOx during project construction to below significant levels, the following mitigation will be implemented.

MM 5.4-7 Upon preparation of final construction plans for the proposed project, the applicant shall either stagger the construction schedule to prevent overlapping construction emissions for Phases 1 and 2 or hire a contractor who would commit to using a high percentage of low NOx equipment in its construction fleet. If construction sequencing is modified from levels assumed in this analysis, the applicant shall demonstrate through calculations that proposed construction phasing will result in emissions of NOx that are below the significance threshold of 250 lbs per day.

Operational Emissions

For operational emissions, there are no feasible mitigation measures to reduce long-term operational emissions of ROC (which contributes to O_3 concentrations in the atmosphere) and PM_{10}, which are mainly associated with traffic. No significant operational impacts associated with emissions of other criteria pollutants (NOx, CO, SOx and $PM_{2.5}$) to ambient air quality are identified. Therefore, no additional mitigation is required.

No significant localized CO hotspot impacts associated with traffic emissions at intersections affected by the project were predicted; therefore, no mitigation is required. It should be noted that mitigation measures identified in Section 5.3, *Transportation/Circulation*, to mitigate intersection impacts to below a level of significance would decrease predicted delays associated with project traffic and, therefore, reduce the potential for CO "hot spots" at those locations.

Issue 3: Would implementation of the proposal conflict with or obstruct implementation of the Regional Air Quality Strategy or ability of the San Diego Air Basin to attain and maintain ambient air quality standards?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

As discussed above, the SDAB is considered a basic nonattainment area for the 8-hour NAAQS for ozone and a nonattainment area for the CAAQS for both ozone and PM_{10}. The significance criteria discussed above that are based on major source thresholds, as defined by the APCD, provide an indication of whether a project has the potential to conflict with or obstruct the ability of the SDAB to attain and maintain ambient air quality standards.

Because of the proposed CPA, the proposed project is not consistent with the population and traffic projections contained in the SIP, which is based on the adopted Community Plan traffic assumptions. Inconsistency with the SIP could lead to conflicts with the goals and objectives of the RAQS as discussed below.

On June 30, 1992, the APCD Board adopted a RAQS designed to serve as a blueprint for improving air quality and meeting the CAAQS for ozone. The pollutants addressed in the strategy are ozone precursors ROC and NOx. The California Clean Air Act and the RAQS require a five percent annual reduction in ozone precursor emissions for areas not meeting state air quality standards, or implementation of all feasible control measures in the event that a five percent annual reduction in ozone precursor emissions is not achievable. The SDAB has not achieved a five percent annual reduction in ozone precursor emissions, thus has adopted the RAQS, which requires implementation of all feasible control measures for ozone precursors. The principal factors considered in selecting control measures are cost effectiveness, emission reduction potential, similarity with control measures proposed elsewhere, technical feasibility, reliability, and ability to be enforced. Control measures included in the RAQS are new technology for power plants; controls on industrial engines; less polluting paints, adhesives and solvents; and tighter emission controls on fiberglass and plastics manufacturers, sterilizers and gasoline storage tanks. Measures under consideration to control emissions from smaller businesses and homes include low emission water heaters and furnaces.

The UTC Revitalization project would implement applicable control measures contained in the RAQS as required by the APCD to reduce emissions of ozone precursors. These measures may include use of low-ROC paints, adhesives and solvents, and installation of low emission water heaters and furnaces where required. In addition, the project is consistent with transportation-related measures contained in the RAQS, including transit improvement and expansion and bicycle facilities. The Master PDP includes an expanded transit center and would reserve right-of-way for the future light rail transit station and line to enhance the use of mass transit opportunities. In addition, a Transportation Demand Management (TDM) plan, described in Section 3.0, *Project Description*, would be implemented by the project applicant to reduce vehicles emissions of retail employees and residents. In combination with the transit center expansion, these efforts would reduce vehicle miles traveled and substantially reduce mobile emission sources of ozone precursors. Despite potential emissions reductions associated with these measures, the proposed project would conflict with the RAQS in that ~~it~~ the CPA would result in a net emissions increase due to increased development intensity rather than an emissions decrease from levels assumed in the SIP, and could obstruct the ability of the SDAB to attain and maintain the ambient air quality standards for O_3.

Significance of Impacts

The project would contribute to an obstruction in the implementation of the RAQS for ROC, despite the implementation of project design features and TDM measures to control ROC as set forth in the RAQS for both construction and operation. The increase in traffic generated from the site associated

with the proposed project would exceed levels assumed in the SIP and could affect the ability of the air basin to attain and maintain ambient air quality standards for O_3 on both a project and cumulative level. Significant impacts to regional air quality could result.

Mitigation Measures, Monitoring and Reporting Program

The project would contribute to an obstruction in the implementation of the RAQS for ROC, which would be a significant impact; therefore, in addition to construction mitigation MM 5.4-7, standard RAQS measures would be implemented by the project applicant to reduce its impact to below a level of significance. The respective control measures are noted under MM 5.4-~~7~~8 below.

MM 5.4-~~7~~8 The project applicant shall incorporate into the contractor specifications the following control measures pursuant to the RAQS for ROC:

- Use of low-ROC paints, adhesives and solvents and
- Installation of low emission water heaters and furnaces where required

Implementation of the proposed TDM and transit station improvements would further reduce operational emissions of ROC. However, n~~N~~o ~~feasible~~ other measures exist to substantially reduce the project's contribution to regional emissions of O_3 precursors. Therefore, this impact would be significant and unmitigable on a cumulative level.

Issue 4: Would implementation of the proposal substantially contribute to global climate change due to emissions of greenhouse gases?

The analysis below is based on the worst-case Maximum Residential scenario from the Master PDP.

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere.

Global climate change attributable to anthropogenic (human) emissions of greenhouse gases (mainly CO_2, CH_4 and N_2O) is currently one of the most important and widely debated scientific, economic and political issues in the United States. Historical records indicate that global climate changes have occurred in the past due to natural phenomena (such as during previous ice ages). Some data indicate that the current global conditions differ from past climate changes in rate and magnitude.

The United Nations Intergovernmental Panel (Panel) on Climate Change constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts.

The Panel concluded that a stabilization of greenhouse gases at 400 to 450 ppm CO_2 equivalent concentration is required to keep global mean warming below 35.6° Fahrenheit (2° Celsius), which is assumed to be necessary to avoid dangerous climate change (Association of Environmental Professionals 2007).

Gases that trap heat in the atmosphere are often called greenhouse gases, analogous to a greenhouse. Greenhouse gases are emitted by both natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the Earth's temperature. Without these natural greenhouse gases, the Earth's temperature would be about 61° Fahrenheit cooler (California Environmental Protection Agency 2006). Emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere.

Greenhouse gases have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas" (USEPA 2006). The reference gas for GWP is CO_2; therefore, CO_2 has a GWP of 1. The other main greenhouse gases that have been attributed to human activity include CH_4, which has a GWP of 21, and N_2O, which has a GWP of 310.

Anthropogenic sources of CO_2 include combustion of fossil fuels (coal, oil, natural gas, gasoline and wood). Data from ice cores indicates that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years. Concentrations of CO_2 have increased in the atmosphere since the industrial revolution (i.e., from approximately the year 1750 onward) from approximately 280 ppm to approximately 383 ppm in 2007, an increase of 103 ppm. Data from Mauna Loa Observatory on Hawaii indicate that CO_2 concentrations in the atmosphere have increased from 315 ppm in 1960 to the present levels (ESRL 2007).

CH_4 is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Anthropogenic sources of natural gas include landfills, fermentation of manure and cattle farming. Anthropogenic sources of N_2O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid.

Other greenhouse gases are present in trace amounts in the atmosphere and include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and O_3.

In 2004, total greenhouse gas emissions worldwide were estimated at 20,135 million metric tons of CO_2 equivalent emissions (United Nations Framework Convention on Climate Change 2006). The United States contributed the largest portion of greenhouse gas emissions at 35 percent of global emissions. In California, according to the California Energy Commission (2006a), CO_2 accounts for approximately 84 percent of statewide greenhouse gas emissions, with CH_4 accounting for approximately 5.7 percent of greenhouse gas emissions and N_2O accounting for 6.8 percent of

greenhouse gas emissions. Other pollutants account for approximately 2.9 percent of greenhouse gas emissions in California. The transportation sector is the single largest category of California's greenhouse gas emissions, accounting for 41 percent of emissions statewide. In 2004, California produced 492 million metric tons of total CO_2 equivalent emissions.

In the fall of 2006, Governor Schwartzenegger signed California AB 32, the global warming bill, into law. AB 32 requires the ARB to adopt regulations by January 1, 2008, to require reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with that program. AB 32 also requires adoption of rules and regulations to achieve maximum technologically feasible and cost-effective greenhouse gas emission reductions. This work may provide direction to establish CEQA guidelines for determination of significance for this topic, but that information is not available at the present time. At this time, AB 32 includes the following goals for reduction of greenhouse gas emissions:

- 2000 levels by 2010 (11 percent below business as usual)
- 1990 levels by 2020 (25 percent below business as usual)
- 80 percent below 1990 levels by 2050

As noted above, the baseline for this guideline, as identified in AB 32, is considered to be "business as usual." For the purposes of the UTC Revitalization Project "business as usual" would be development according to the energy efficiency standards established in Title 24. However, the proposed project would be constructed to exceed the reduction goals of Title 24 before 2020 by implementing high-performance architecture, low energy systems, renewable power generation on site, sustainable landscape and water conservation measures within a transit-oriented development. As described in Section 3.0, *Project Description*, the proposed project intends to achieve certification within the LEED Green Building Rating System as a LEED-ND pilot project. The LEED-ND pilot program integrates the principals of smart growth, new urbanism and green building. Specific to reducing carbon emissions, the proposed project would implement energy efficiency targets, integrate an expanded transit center on site, provide on and off-site pedestrian and bike improvements and an on-site car share program, use reclaimed water for irrigation, install water-conserving plumbing and fixtures, institute recycling programs for operational and construction waste, potentially generate electricity using rooftop photovoltaics, potentially develop a central plant for more efficient distribution of heat and cooling, and utilize employee transit subsidies and employee ridesharing programs. All of these and other efforts would reduce the project's potential for producing greenhouse gas emissions.

In March 2007, the U.S. Supreme Court ruled that the USEPA should be required to regulate CO_2 and other greenhouse gases as pollutants under the Clean Air Act. The USEPA has not developed a regulatory program for greenhouse gas at this time.

A consideration in the analysis of greenhouse gas emissions is those emissions under the operational control of the project applicant. The concept of operational control is embodied in the Greenhouse

Gas Protocol, the most widely used international accounting tool for government and business leaders to understand, quantify and manage greenhouse emissions. The Greenhouse Gas Protocol Initiative, a decade-long partnership between the World Resources Institute and the World Business Council for Sustainable Development is working with businesses, governments and environmental groups around the world to build a new generation of credible and effective programs for tackling climate change. The Greenhouse Gas Protocol provides the accounting framework for nearly every greenhouse gas standard in the world.

The protocol divides greenhouse gas emissions into three scopes, ranging from greenhouse gases produced directly by the project, to more indirect sources of greenhouse gas emissions, such as employee travel and commuting. For the purpose of this analysis, the direct and indirect emissions are separated into three broad scopes:

- Scope 1: All direct greenhouse gas emissions.
- Scope 2: Indirect greenhouse gas emissions from consumption of purchase electricity, heat or steam.
- Scope 3: Other indirect emissions, including emissions from the extraction and production of purchased materials and fuels, transportation-related activities in vehicles not owned or controlled by the project, electricity-related activities (i.e., transmission and distribution losses) not covered in Scope 2, and outsourced activities such as waste disposal, etc.

Greenhouse Gas Emissions Estimate

Greenhouse gas emissions associated with the UTC Revitalization Project were estimated separately for three categories or sources of emissions: (1) increases in emissions due to energy use at retail/office/hotel uses and the residential developments; (2) emissions associated with obtaining and consuming potable water; and (3) vehicle use. As noted above, the analysis presented herein is the "business as usual" approach and the UTC Green Program would substantially reduce estimated emissions as described below.

Construction

Greenhouse gas emissions would be associated with the construction phase of the project through use of heavy equipment and vehicle trips. Emissions of greenhouse gases would be temporary. Based on emission factors from the OFFROAD model for heavy construction equipment, and from the EMFAC2007 model for on-road vehicles, total greenhouse gases associated with construction are estimated at 5,706 tons of CO_2 total for the duration of construction.

Energy Use

Emissions associated with energy use would arise from the combustion of fossil fuels to provide energy for the retail, residential, hotel and office uses proposed for various land use scenarios for the proposed project.

Emissions of greenhouse gases from the commercial office and retail developments were projected based on estimated annual energy use of 13.55 kWh per square foot for retail space, 9.95 kWh per square foot for hotel uses and 12.95 kilowatt hours (kWh) per square foot of office space and (SCAQMD 1993). Emissions were estimated based on emission factors from the California Climate Action Registry General Reporting Protocol (CCAP 2007).

The proposed project would include up to 725 multi-family residential units (under the Maximum Residential land use scenario). Residences are assumed to use purchased electricity for cooling, appliances and plug-loads, and natural gas for cooking and water heating. Baseline energy use was calculated as a function of kWh per square foot based on average performance for southern California residences compliant with Title 24 (2005) standards. According to the California Energy Commission (2004), the average annual residential energy use rate is 5,914 kWh per residential unit. Emissions associated with natural gas usage were calculated based on the SCAQMD's estimated natural gas usage per square foot (SCAQMD 1993).

Based on the various land use scenarios, CO_2-equivalent emissions would be highest (5,963 metric tons per year) under the Maximum Residential scenario (Table 5.4-~~19~~20, *Summary of Estimated Operational Greenhouse Gas Emissions*). Emissions of CH_4 and N_2O would be relatively minor in comparison. These emissions represent the emissions that would be added to the greenhouse gas emissions associated with the current developed square footage.

Water Consumption

Water use and energy use are often closely linked. The provision of potable water to commercial and residential consumers requires large amounts of energy associated with five stages: (1) source and conveyance, (2) treatment, (3) distribution, (4) end use and (5) wastewater treatment. As discussed in Section 5.7, *Public Utilities*, the proposed project would create an additional maximum demand of ~~226,250~~222,751 gpd of potable water (under the Maximum Residential land use scenario), assuming reclaimed water is used to irrigate landscaping. This would be the worst-case increase in water demand projected for the UTC property under the proposed Master PDP. These demand amounts are conservative, as the proposed project would include water efficiency measures proposed under the green program (refer to Section 5.8, *Water Conservation*).

Table 5.4-20
SUMMARY OF ESTIMATED INCREMENTAL OPERATIONAL GREENHOUSE GAS EMISSIONS[1]

Emission Source	Annual Emissions (tons/year)		
	CO_2	N_2O	CH_4
Electricity Use Emissions	4,581	0.02	0.04
Natural Gas Use Emissions	1,371	0.003	0.15
Water Consumption Emissions[2]	377	0.0017	0.0031
Vehicular Use Emissions	26,135	3.43	1.76
Global Warming Potential Factor	1	310	21
CO_2 Equivalent Emissions[3]	32,464	1,071	41
TOTAL CO_2 Equivalent Emissions[4]	33,576		

Source: SRA 2008.

[1] The Maximum Residential land use scenario represents the worst-case scenario of the UTC Revitalization Project for energy use, and the proposed project represents the worst-case scenario for vehicle emissions with regard to greenhouse gas emissions.

[2] Maximum water usage is conservative in that the project would implement water efficiency measures to reduce water usage on site.

[3] CO_2 Equivalent Emissions equals the sum of Energy Use Emissions plus Water Consumption Emissions plus Vehicular Use Emissions, multiplied by the Global Warming Potential Factor.

[4] Total CO_2 Equivalent Emissions equals the sum of the CO_2 Equivalent Emissions of CO_2, N_2O and CH_4.

The California Energy Commission (2006b) estimates that in southern California, water usage will have an embodied energy of 12,700 kWh per million gallons. CO_2 emissions were calculated on the maximum basis of an additional 222,751~~226,250~~ gpd of water usage (~~82.58~~81.3 million gallons annually) times 12,700 kWh per million gallons. Emissions of greenhouse gases were calculated based on the California Climate Action Registry General Reporting Protocol (CCAP 2007).

Vehicle Use

Mobile source greenhouse gas emissions were estimated based on the projected ADTs from the TIS (LLG 2007). Average trip lengths were estimated based on the URBEMIS2002 model outputs, which indicated that the average trip length associated with the UTC project would be 7.58 miles. Emissions of CO_2 and CH_4 were obtained from the EMFAC2007 model. Emissions of N_2O and CH_4 were estimated based on EPA emission factors, assuming vehicles, on average, would meet Tier 0 emission standards. Based on the maximum of 17,800 ADT projected for the proposed project, emissions of CO_2-equivalent greenhouse gases were estimated at 26,815 tons per year. For the Maximum Residential Scenario (the development scenario with the highest greenhouse gas emissions), the emissions of CO2-equivalent greenhouse gases were estimated at 26,244 tons per year. These numbers do not take into account vehicle (and CO_2 emissions) reductions associated with developing a mixed-use project in the vicinity of a transit center and future LRT station, which is a feature of the smart growth element of the LEED certification the applicant is pursuing.

Proposed Reductions in Greenhouse Gas Emissions

As discussed in Section 5.4.1, *Existing Conditions*, current sources of greenhouse gas emissions at UTC are attributable to combustion of fossil fuels, including emissions from energy use and emissions from motor vehicles. ~~The~~ A portion of the existing retail development would be reconstructed, and the redeveloped buildings would incorporate plans and programs to reduce energy usage (see Table 5.4-20). The reconstructed development would achieve energy usage reductions due to the energy efficiency programs proposed for the project. These energy usage reductions could not be quantified at this time; therefore, emissions associated with energy use for the redeveloped portion of the project represent a worst-case estimate.

As discussed in Section 5.4.1, *Existing Conditions*, ~~54,000~~40,578 gpd of water usage is attributable to irrigation. This water usage would be replaced by reclaimed water, reducing energy demand of the existing center accordingly. Thus, based on a reduction in water usage for the existing development of ~~54,000~~40,578 gpd of water, the existing developed retail space would require approximately ~~55,307~~26,703 gpd of water. Reductions in existing water demand associated with the proposed project were calculated accordingly.

No transit reduction was assumed for vehicle use for retail uses, even though some reduction in vehicle trips and miles traveled would likely occur as a result of the transit center and other future alternative transportation improvements on and/or adjacent to the site.

Table 5.4-~~20~~21, *Summary of Estimated Operational Greenhouse Gas Emissions (Existing Plus Project)*, summarizes the operational greenhouse gas emissions associated with the proposed project for the redevelopment of existing retail space, taking into account reductions in emissions due to the revitalization project.

Significance of Impacts

For the purpose of this analysis, greenhouse gas emissions under the operational control of UTC associated with the proposed project have been identified and quantified. These emissions are associated with increased energy use, water use and vehicular emissions due to project-generated traffic. The UTC Revitalization Project after buildout of the worst-case scenario (the Maximum Residential land use scenario) would emit an estimated additional 33,~~575~~ 576 tons per year of CO_2 equivalent emissions above the existing development levels. A forecast for greenhouse gas emissions in the SDAB or in California is not currently available. UTC would be required by the ARB to be in compliance with the provisions of AB 32, which provides statewide guidance for reductions below "business as usual;" however, the project applicant is proposing LEED certification of the expanded facility and a green program that would reduce energy use, water consumption and vehicle use associated with the revitalized shopping center which in turn would reduce emissions of greenhouse gases.

Table 5.4-~~20~~21
SUMMARY OF ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS (EXISTING PLUS PROJECT)

Emission Source	Annual Emissions (tons/year)		
	CO_2	N_2O	CH_4
Electricity Use Emissions	5,248	0.02	0.04
Natural Gas Use Emissions	902	0.002	0.10
Water Consumption Emissions	~~94~~115	0.~~00080~~0005	0.~~00040~~0010
Vehicular Use Emissions	44,258	3.43	2.98
Global Warming Potential Factor	1	310	21
CO_2 Equivalent Emissions[1]	50,~~502~~523	1,070	66
TOTAL CO_2 Equivalent Emissions for Redeveloped Center[2]	51,~~638~~659		
CO_2 Equivalent Emissions – Maximum New Development Scenario	33,~~575~~576		
TOTAL CO_2 Equivalent Emissions – Redeveloped and New Development	85,~~213~~235		

[1] CO_2 Equivalent Emissions equals the sum of Energy Use Emissions plus Water Consumption Emissions plus Vehicular Use Emissions, multiplied by the Global Warming Potential Factor.

[2] Total CO_2 Equivalent Emissions equals the sum of the CO_2 Equivalent Emissions of CO_2, N_2O and CH_4.and reflectes increased efficiency of the demolished and redeveloped portion of the existing center.

As such, the UTC Revitalization Project has adopted numerous measures designed to ensure that the project is energy-efficient as part of its LEED certification commitment and that emissions of all pollutants, including greenhouse gases, would reduced below "business as usual" levels quantified above in Table 5.4-~~19~~20, to the extent practical. Accordingly, the following measures would be included in the project design as the Master PDP is implemented (Westfield 2007):

- Energy efficiency targets for core and shell and tenant fit-out.
- Integration of a new transit center on-site with capacity for local, commuter and regional bus service, local shuttle service (Superloop), and future bus rapid transit (BRT) service with immediate adjacency to the LRT extension planned as part of the Mid-Coast project.
- On and off-site pedestrian and bicycle improvements to encourage non-motorized forms of transportation, including non-contiguous sidewalks around the perimeter of the site, strong pedestrian connections into and through the project, secure bike storage, new bicycles lanes, wayfinding signage, and potential for real-time transit information in strategic locations on the site.
- Employment of a rideshare coordinator dedicated to implementing initiatives to increase journeys to and from UTC by foot, bicycle, and public transit, including transit subsidies for employees.

- Implementation of a comprehensive recycling program and waste reduction strategies for tenants, shoppers, and residents.
- Installation of high-efficiency fixtures and equipment to reduce energy and water usage, including Energy Star equipment, low-flow plumbing fixtures and waterless urinals.
- Investigation of the feasibility of establishing a Resource Recovery Center to maximize recycling of waste from tenants, residents, and shoppers.
- Establishment of targets for reuse and recycling of demolition materials and for the volume of recycled materials used to construct the development.
- Waste reduction strategies to minimize construction waste by up to 50 percent.
- Use of recycled water from the City's system to meet UTC's irrigation needs. This would reduce the water usage by approximately ~~54,000~~40,500 gpd from existing levels.
- Use of porous hard surfaces, swales, and other permeable surfaces where appropriate on site.
- Greening of walls and roofs at strategic locations on site.
- Development of a procurement strategy to avoid materials with high environmental and social impacts, including substituting renewable materials for non-renewable materials wherever feasible.
- Use of microclimate techniques to enhance thermal comfort through the design of outdoor spaces, including selection of finishing materials and use of landscaping.
- Introducing a car-share scheme available to residents and workers in the area.
- Requiring tenants to meet sustainable performance targets through the Tenant Criteria Manual
- Potential generation of electricity on site and the use of a central plant to efficiently distribute heat and cooling across the site.
- Potential on-site renewable energy generation from photovoltaics installed on roofs and parking lots across the site, providing added benefits of shading vehicles.
- Establishment of a green tenant recognition program.
- Developing education and awareness programs for tenants, residents, and shoppers.

In addition to UTC's green program, which would implement the measures listed above, the project design is designed as a mixed-use and high-density development designed to reduce vehicle trips and provide alternatives to vehicle travel by promoting efficient delivery of services and goods. The project's purpose is to revitalize an existing shopping center and this redevelopment project is designed to improve energy and water efficiency at the existing facility and increase the use of public transit, thus reducing emissions for both the existing and proposed sections of the center.

According to the CEC (CEC 2006), transportation accounts for approximately 41 percent of California's 2004 greenhouse gas emissions. Growth in California has resulted in vehicle miles traveled by California residents increasing three-fold during the period from 1975 to 2004. Projects such at the UTC Revitalization project, which includes mixed uses, high-density residential development, and public transit, are designed to reduce vehicle miles traveled. Results of a study that compared vehicle miles traveled in high-density developments indicated a reduction of 7.5 percent over a "business-as-usual" development. The Governor of California has signed Executive Order S-01-07, calling for a reduction in carbon content in fuels in California, the goal of which is to carbon intensity in fuels by 10 percent by the year 2020. All of these measures are designed to reduce emissions of greenhouse gases. Furthermore, due to the adoption of AB 1493, passenger cars and light-duty trucks would be required to reduce emissions by 18 percent by the year 2020, and by 27 percent by 2030.

While it is not possible at this time to quantify all the reductions in greenhouse gas emissions anticipated from the above-listed measures, the proposed project would be consistent with the goals of California's AB 32 and, therefore, impacts from greenhouse gas emissions would be less than significant.

Mitigation Monitoring and Reporting Program

No significant impacts are identified; therefore, no mitigation is required.

5.5 HYDROLOGY/WATER QUALITY

A Water Quality Technical Report (WQTR) and Preliminary Drainage Study have been prepared for the proposed project by Rick Engineering Company (Rick Engineering 2007c). A separate Drainage Study and WQTR have also been completed for Retail Building V in the northeastern corner of the UTC property (Rick Engineering 2007d), with associated improvements approved as a separate project and under construction as of this writing. The referenced studies are summarized in the following analysis as appropriate (along with other applicable information), with the proposed project report included in Appendix D of this EIR and the Building V report incorporated by reference (and available for review at the City of San Diego).

5.5.1 Existing Conditions

Surface Water

Watershed and Drainage Characteristics

The project site is within the Miramar Hydrologic Area (HA) of the Peñasquitos Hydrologic Unit (HU). The Peñasquitos HU is one of eleven such drainage areas designated in the 1994 (as amended) San Diego Regional Water Quality Control Board (RWQCB) *Water Quality Control Plan for the San Diego Basin* (Basin Plan). The Peñasquitos HU is a triangular area of approximately 170 square miles and extends from Poway on the east to Mission Bay-Del Mar along the coast. The Miramar HA is a subdivision of the Peñasquitos HU (based on local drainage characteristics) and includes an area of approximately 40 square miles in the southern and western portions of the HU (Figure 5.5-1, *Local Hydrologic Designations*). Surface drainage in the Peñasquitos HU occurs through a number of small to moderate size streams, including San Clemente Canyon and Rose Canyon creeks in the project vicinity. Average annual precipitation in the Peñasquitos HU ranges from approximately 8 inches along the coast to 18 inches at some inland locations, with the project site receiving approximately 10 to 12 inches per year.

The project site is entirely developed and encompasses numerous commercial structures and related facilities (e.g., surface and structural parking areas) associated with the existing UTC shopping center. Existing on-site drainage is collected and conveyed within the UTC property through a number of private storm drain facilities, and flows offsite and into existing public storm drains through eight existing discharge "outfalls." Drainage within the off-site storm drains flows generally to the south or west and into two unnamed tributaries to Rose Canyon Creek. The first of these tributaries extends south-southeast from the southeastern site boundary for approximately 2,800 feet before entering Rose Canyon Creek. The second tributary is located approximately 400 feet west of Genesee Avenue and south of Nobel Drive, and flows approximately 2,000 feet south-southeast from this point to Rose Canyon Creek. Rose Canyon continues west-southwest for approximately two miles from its

intersection with Genesee Avenue to Interstate 5 (I-5), where it turns south and extends an additional 3.5 miles before entering the northeastern portion of Mission Bay (Fiesta Bay).

The project site is surrounded by existing residential, commercial, industrial and institutional development, as well as a number of associated public roadways. Adjacent development incorporates several related drainage facilities, including public storm drain systems as noted above. Downstream drainage facilities include similar storm drain systems in existing development sites, as well as crossing structures at Rose Canyon Creek for major roadways including Genesee Avenue, State Route 52 and I-5.

Flooding Hazards

The project site vicinity has been mapped for flood hazards by the Federal Emergency Management Agency (FEMA). The entire project site and adjacent areas are mapped as Zone X, or areas outside 500-year (and thus 100-year) floodplains (FEMA 1997). The closest mapped 100-year floodplains are located approximately 1,250 feet southeast of the site in a previously described unnamed tributary drainage, and approximately 2,000 feet southeast of the site in Rose Canyon Creek (FEMA 1997).

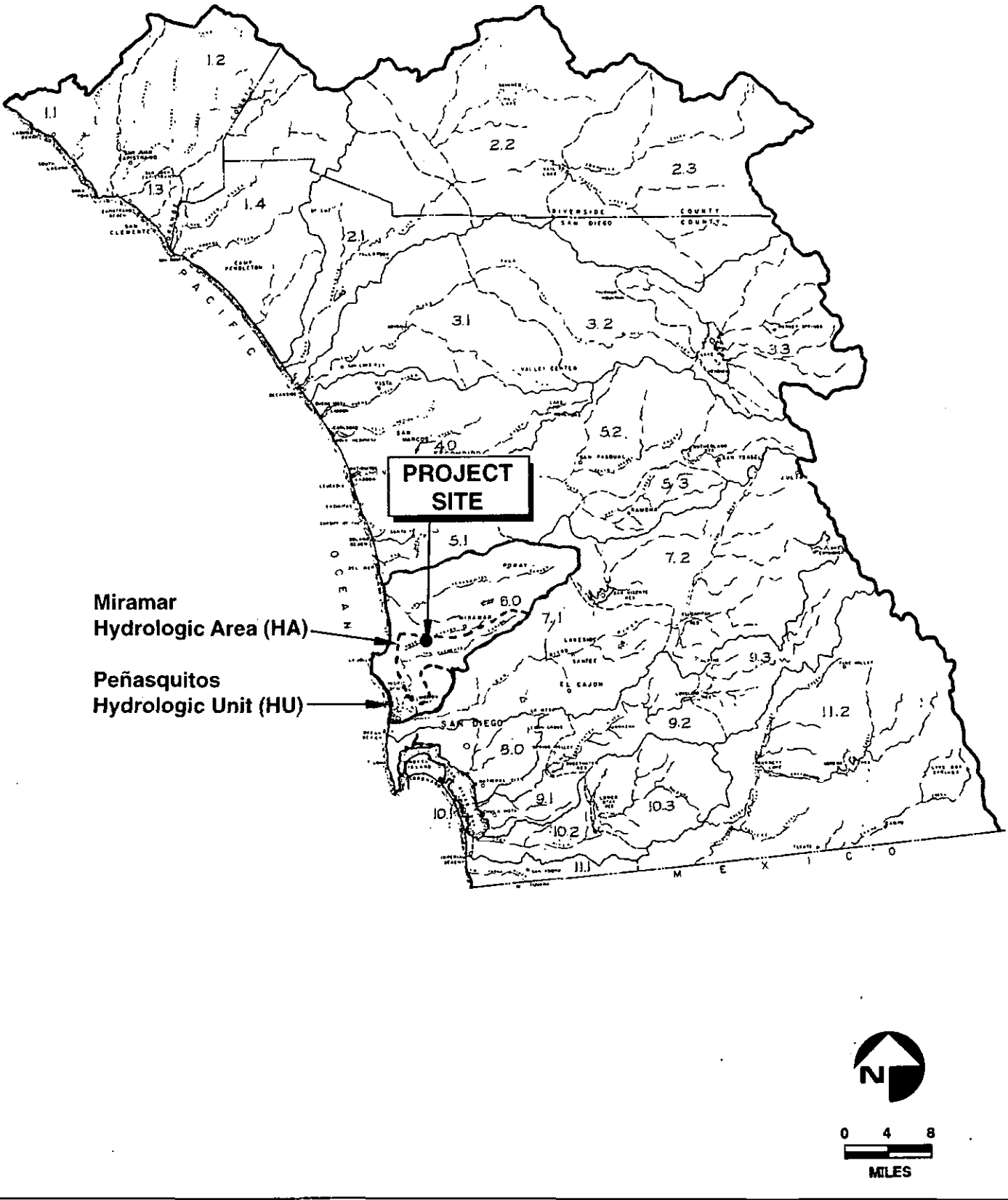
Groundwater

The project site is within the Miramar HA Groundwater Basin (which includes a similar area as previously described for the Miramar HA), although no known data are available to suggest that static, shallow groundwater is present within the project site or immediate vicinity. Shallow groundwater is likely present to the south in association with Rose Canyon Creek, and could potentially occur along the described tributary drainages located south and southwest of the site. Perched groundwater could also be present within the site and vicinity, with such aquifers typically somewhat limited in extent but variable with recharge from seasonal precipitation and/or irrigation.

Water Quality

Surface Water

Surface water within the project site is limited to municipal irrigation flows and intermittent runoff from storm events. No known water quality data are available for on-site runoff, although irrigation and storm flows are typically subject to wide variations in water quality with factors such as storm event timing (e.g., "first flush" runoff), runoff volume/velocity and adjacent land uses. A summary of typical urban contaminant sources and loadings is shown in Tables 5.5-1, *Summary of Contaminant Sources*, and 5.5-2, *Typical Contaminant Loadings in Runoff for Various Urban Land Uses*.



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Local Hydrologic Designations

UTC REVITALIZATION PROJECT

HELIX

Figure 5.5-1

As previously described, the principal surface waters located downstream from the project site include two unnamed tributary drainages, Rose Canyon Creek and Mission Bay. Existing flows in the described surface drainages consist predominantly of storm water and irrigation runoff. Quantitative water quality data for the described surface drainages include dry season, bioassessment and ambient bay and lagoon monitoring associated with the federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) urban runoff monitoring program (refer to the discussion of Regulatory Framework below for more information on NPDES permitting). The results of these monitoring efforts indicate generally poor water quality conditions in downstream waters (Weston Solutions, Inc. 2007). Based on this information and the urbanized nature of surrounding watersheds, water quality in Rose Canyon Creek and the noted tributaries downstream of the project site is expected to be generally poor. Mission Bay is also surrounded by urban development, is heavily used by recreational watercraft, and is designated as an impaired water body in regional water quality assessments (as described below). As a result, water quality within Mission Bay is assessed as generally poor.

The State Water Resources Control Board (SWRCB) and RWQCB produce regular qualitative assessments of statewide and regional water quality conditions. These studies are conducted pursuant to federal and state regulatory requirements (e.g., the federal Clean Water Act and state Porter-Cologne Water Quality Control Act), and provide qualitative water quality ratings (e.g., good, intermediate or poor, relative to Basin Plan beneficial uses as described below under Regulatory Framework) for the 1991 through 1996 assessments, priority status (low, medium or high) for possible Clean Water Act Section 303(d) listing and assignment of total maximum daily load (TMDL) requirements in the 1998 through 2002 assessments, and target dates for TMDL completion in the 2006 assessment. The Section 303(d) and TMDL assessments involve prioritizing waters on the basis of water quality (impaired) status and the necessity for assigning quantitative contaminant load restrictions (i.e., TMDL), with these data submitted to the EPA for review and approval. The results of all the described assessments are summarized below in Table 5.5-3, *Summary of Applicable RWQCB/SWRCB Water Quality Assessment Data*, for Rose Canyon Creek and Mission Bay, with the unnamed tributaries not assessed in any of the referenced studies. As noted above, Mission Bay is designated as an impaired water body, with this rating based on observations including bacterial indicators for the entire bay shoreline (2,032 acres), and eutrophic conditions for 9.2 acres at the mouth of Rose Canyon Creek. The proposed TMDL completion date for Mission Bay at the mouth of Rose Canyon Creek is 2019 (SWRCB 2006).

Table 5.5-1
SUMMARY OF CONTAMINANT SOURCES FOR URBAN STORM WATER RUNOFF

CONTAMINANT	CONTAMINANT SOURCES
Sediment and Floatables	Streets, lawns, driveways, roads, construction activities, atmospheric deposition, drainage channel erosion
Pesticides and Herbicides	Residential lawns and gardens, roadsides, utility right-of-ways, commercial and industrial landscaped areas, soil wash-off
Organic Materials	Residential lawns and gardens, commercial landscaping, animal wastes
Oxygen Demanding Substances	Residential lawns and gardens, commercial landscaping, animal wastes, leaky sanitary sewer lines or septic systems
Metals	Automobiles, bridges, atmospheric deposition, industrial area, soil erosion, corroding metal surfaces, combustion processes
Oil and Grease/Hydrocarbons	Roads, driveways, parking lots, vehicle maintenance areas, gas stations, illicit dumping to storm drains
Bacteria and Viruses	Lawns, roads, leaky sanitary sewer lines, sanitary sewer cross-connections, animal waste, septic systems
Nitrogen and Phosphorus	Lawn fertilizers, atmospheric deposition, automobile exhaust, soil erosion, animal waste, detergents

Source: U.S. Environmental Protection Agency (EPA 1999)

Table 5.5-2
TYPICAL CONTAMINANT LOADINGS IN RUNOFF FOR VARIOUS URBAN LAND USES
(lb/acre-year)

LAND USE	TSS	TP	TKN	NH_3 - N	NO_2 + NO_3 - N	BOD	COD	Pb	Zn	Cu
Commercial	1000	1.5	6.7	1.9	3.1	62	420	2.7	2.1	0.4
Parking Lot	400	0.7	5.1	2	2.9	47	270	0.8	0.8	0.04
HDR	420	1	4.2	0.8	2	27	170	0.8	0.7	0.03
MDR	190	0.5	2.5	0.5	1.4	13	72	0.2	0.2	0.14
LDR	10	0.04	0.03	0.02	0.1	N/A	N/A	0.01	0.04	0.01
Freeway	880	0.9	7.9	1.5	4.2	N/A	N/A	4.5	2.1	0.37
Industrial	860	1.3	3.8	0.2	1.3	N/A	N/A	2.4	7.3	0.5
Park	3	0.03	1.5	N/A	0.3	N/A	2	0	N/A	N/A
Construction	6000	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

HDR = High Density Residential; MDR = Medium Density Residential; LDR = Low Density Residential
N/A = Not available; insufficient data to characterize
TSS = Total suspended solids; TP = Total Phosphorus; TKN = Total Kjeldahl Nitrogen; NH_3 – N = Ammonia; NO_2 + NO_3 – N = Nitrate + Nitrite Nitrogen; BOD = Biochemical Oxygen Demand; COD = Chemical Oxygen Demand; Pb = Lead; Zn = Zinc; Cu = Copper
Source: EPA (1999)

Groundwater

No known current quantitative groundwater quality data are available for the project site and vicinity. Water quality in the Miramar HA Groundwater Basin was listed as "intermediate" in the referenced 1991 RWQCB assessment, "unknown" in the 1994 SWRCB study, and was not assessed in the 1996 through 2006 SWRCB investigations (refer to Table 5.5-3).

Table 5.5-3
SUMMARY OF APPLICABLE RWQCB/SWRCB WATER QUALITY ASSESSMENT DATA

Water Body	1991 Assessment	1994 Assessment	1996 Assessment	1998 Assessment	2000 Assessment	2002 Assessment	2006 Assessment[1]
Mission Bay	1,500 acres exhibiting good water quality, 20 acres listed as impaired.	490 acres in East Mission Bay exhibiting good water quality, 10 acres listed as impaired.	1,540 acres not supporting Basin Plan beneficial uses.	1,540 acres assigned low TMDL priority based on coliform counts, 1 acre assigned medium TMDL priority based on eutrophic conditions and lead levels.	1,540 acres assigned low TMDL priority based on coliform counts, 1 acre assigned medium TMDL priority based on eutrophic conditions and lead levels,	2,032 acres assigned a medium TMDL priority based on bacteria counts, and a low priority based on eutrophic conditions and lead levels.	Entire bay listed for bacterial indicators, 9.2 acres at the mouth of Rose Canyon Creek listed for eutrophic conditions.
Rose Canyon Creek	Entire 13-mile length exhibiting unknown water quality.	Entire 13-mile length exhibiting intermediate water quality.	Not assessed	Not assessed	Not assessed	Not assessed	Not assessed
Miramar HA Ground water Basin	Entire 41-square mile area exhibiting intermediate water quality.	Entire 41-square mile area exhibiting unknown water quality.	Not assessed	Not assessed	Not assessed	Not assessed	Not assessed

[1]2006 listings adopted by the SWRCB on October 25, 2006 and approved by the EPA in November 2006.
Source: SWRCB (2006, 2003, 2000, 1999, 1997, 1994), RWQCB (1991)

Regulatory Framework

The proposed project is subject to a number of regulatory requirements associated with federal, state and local guidelines as summarized below, with additional discussion provided in Section 5.5.2, *Impacts*, as appropriate.

National Pollutant Discharge Elimination System Requirements

The proposed project is subject to applicable elements of the federal Clean Water Act, including the NPDES. Specific NPDES requirements may include demonstration of conformance with the following permits: (1) General Construction Activity Storm Water Permit (NPDES No. CAS000002); (2) Groundwater Extraction Waste Discharges Permit (i.e., NPDES No. CAG919002, Discharge To Surface Water in the San Diego Region Except For San Diego Bay); and (3) Municipal Storm Water Permit (NPDES No. CAS0108758).

General Construction Activity Permit

Authorization under the General Construction Activity Permit is required prior to project development for applicable sites exceeding one acre (per Phase II permit requirements), with such authorization issued by the SWRCB (pursuant to Order No. 99-08-DWQ) under an agreement with the EPA. Specific conformance requirements include implementing an approved Storm Water Pollution Prevention Plan (SWPPP) and monitoring program, as well as a Storm Water Sampling and Analysis Strategy (SWSAS) for applicable projects (i.e., those discharging directly into impaired waters or involving non-visible contaminants that may exceed water quality objectives). These plans identify detailed measures to prevent and control the off-site discharge of contaminants in storm water runoff, and are specifically intended to protect receiving waters (including impaired waters) and provide conformance with applicable water quality objectives. Specific pollution control measures typically involve the use of best available technology (BAT) and/or best conventional pollutant control technology (BCT), with these requirements implemented through best management practices (BMPs). While site-specific measures vary somewhat with conditions such as proposed grading parameters, slope and soil characteristics, detailed guidance for construction-related BMPs is provided in the permit text, the City of San Diego *Standard Urban Storm Water Mitigation Plan* (SUSMP, City of San Diego 2002c), and the Municipal Code *Land Development Manual-Storm Water Standards* (Storm Water Standards, City of San Diego 2003b). Additional sources for construction related BMPs include the *Storm Water Best Management Practices Handbooks* (California Stormwater Quality Association 2003), *EPA Nationwide Menu of Best Management Practices for Storm Water Phase II* (EPA 2003), *Best Management Practices for Erosion and Sediment Control & Stormwater Retention/Detention* (San Diego County Association of Resource Conservation Districts 1998) and the Caltrans *Storm Water Quality Handbooks* (Caltrans 2003). The application of storm water permit and SWPPP requirements to the proposed project is described below in applicable portions of Section 5.5.2, Impacts.

Groundwater Extraction Waste Discharge Permit

Authorization under the noted General Groundwater Extraction Waste Discharges Permit is required by the RWQCB (pursuant to Order No. 2001-96 for the project site) prior to disposal of extracted groundwater which either: (1) involves more than 100,000 gallons per day (gpd) of discharge; or (2) includes contaminants which would exceed applicable discharge requirements. These requirements are intended to ensure compliance with Basin Plan water quality and beneficial use objectives (as described below), and typically require BMPs involving a number of physical and/or chemical parameters such as erosion/sedimentation controls and testing/treatment of extracted groundwater prior to disposal.

Municipal Storm Water Permit

This permit was initially adopted by the RWQCB on February 21, 2001 (under Order No. 2001-01), with a revised permit adopted on January 24, 2007 (under Order No. 2007-0001). The Municipal Permit identifies waste discharge requirements for urban runoff related to applicable new development, redevelopment and existing development sites under the jurisdiction of co-permittees (e.g., the City of San Diego). The intent of these requirements is to protect environmentally sensitive areas and provide conformance with pertinent water quality standards, including the federal Clean Water Act and the RWQCB Basin Plan. Identified requirements involve using a number of planning, design, operation, treatment and enforcement measures to reduce pollutant discharges from individual development projects (and the municipal storm drain system as a whole) to the maximum extent practicable (MEP). Specifically, these measures include: (1) using jurisdictional planning efforts (such as discretionary general plan approvals) to provide water quality protection; (2) requiring coordination between individual jurisdictions to provide watershed-based water quality protection; (3) implementing applicable low impact development, site design, source control, priority project, and volume- or flow-based (as defined in the permit text) treatment control BMPs to avoid, reduce and/or mitigate effects including increased erosion and sedimentation, hydromodification[1] and the discharge of contaminants in urban runoff; and (4) using appropriate monitoring, reporting and enforcement efforts to ensure proper implementation, documentation and (as appropriate) modification of permit requirements.

Pursuant to the described Municipal Permit requirements, the City of San Diego (along with other applicable co-permittees) developed the previously referenced SUSMP (approved by the RWQCB on June 12, 2002) and Storm Water Standards to address related water quality issues (as described below under City Requirements). These guidelines provide (among other things) direction for project applicants to determine if and how they are subject to Municipal Storm Water Permit (and related)

[1] Hydromodification is defined in the Municipal Permit as the change in natural watershed hydrologic processes and runoff characteristics (infiltration and overland flow) caused by urbanization or other land use changes that result in increased stream flows, sediment transport, and morphological changes in the channels receiving the runoff.

standards, and identify requirements for the inclusion of permanent site design, source control, priority project and treatment BMPs to provide regulatory conformance for applicable projects. It should be noted that the current City Storm Water Standards were most recently updated in 2003 and do not specifically address current requirements under the 2007 Municipal Permit. It is anticipated that updated City Storm Water Standards will be adopted by January 2008 (in line with requirements in the Municipal Permit), and that the design of the project storm water system may potentially be modified to reflect the revised standards.

Basin Plan Requirements

The San Diego Basin Plan establishes a number of beneficial uses and water quality objectives for surface and groundwater resources. Beneficial uses are generally defined in the Basin Plan as "the uses of water necessary for the survival or well being of man, plus plants and wildlife." Identified beneficial uses for surface and coastal waters (including Mission Bay) within the Miramar HA include industrial service supply (IND); contact and non-contact water recreation (REC-1 and REC-2); commercial and sport fishing (COMM); warm and cold freshwater habitats (WARM and COLD); wildlife habitat (WILD); rare, threatened or endangered species habitat (RARE); estuarine habitat (EST); marine habitat (MAR); migration of aquatic organisms (MIGR); and shellfish harvesting (SHELL). No beneficial uses are identified for groundwater resources in the portion of the Miramar HA Groundwater Basin located west of Interstate 15 (which includes the project site and downstream areas, RWQCB 1994, as amended).

Water quality objectives identified in the Basin Plan are based on established beneficial uses, and are defined as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses." Water quality objectives are thus derived from beneficial uses, which are based on the ability of given water sources (in terms of water quality) to safely accommodate specific uses. Accordingly, an individual water source may exhibit poor water quality in terms of overall types and levels of constituents present, yet still meet the water quality objectives identified in the Basin Plan. Water quality objectives identified for surface water resources in the Miramar HA are summarized in Table 5.5-4, *Water Quality Objectives for the Miramar Hydrologic Area of the Peñasquitos Hydrologic Unit*. No water quality objectives are identified for groundwater resources in the portion of the Miramar HA Groundwater Basin located west of Interstate 15 (which includes the project site and downstream areas, RWQCB 1994, as amended).

Table 5.5-4
WATER QUALITY OBJECTIVES FOR THE MIRAMAR HYDROLOGIC AREA OF THE PEÑASQUITOS HYDROLOGIC UNIT*

SURFACE WATER												
Constituent (mg/l or as noted)												
TDS	Cl	SO_4	% Na	N&P	Fe	Mn	MBAS	B	Odor	Turb NTU	Color Units	F
500	250	250	60	**	0.3	0.05	0.5	0.75	None	20	20	1.0

*Concentrations not to be exceeded more than 10% of the time during any one-year period.
**Shall be maintained at levels below those which stimulate algae and emergent plant growth.
Abbreviation Key: TDS = total dissolved solids; Cl = Chlorides; SO_4 = Sulfate; Na = Sodium; N&P = Nitrogen and Phosphorus; Fe = Iron; Mn = Manganese; MBAS = Methylene Blue – Activated Substances (anionic surfactant or commercial detergent); B = Boron; Turb = Turbidity (measured in Nephelometric Turbidity Units [NTU]); F = Fluoride.
Source: RWQCB (1994, as amended)

City of San Diego Requirements

Construction of any project in the City of San Diego is subject to applicable erosion control requirements in the City Grading Ordinance, as well as the City Storm Water Standards and SUSMP guidelines noted above under NPDES requirements.

Pursuant to the City Storm Water Management and Discharge Control Ordinance (SDMC 43.03 et seq.), all new development in the City of San Diego is required to comply with the storm water pollution prevention measures identified in Chapter 14, Article 2, Division 1 (grading), and Chapter 14, Article 2, Division 2 (storm water runoff control and drainage) of the *Land Development Code*. These measures require that development be conducted to prevent erosion, sedimentation and pollutant discharge to the maximum extent practicable. Both temporary and permanent erosion, sedimentation and water pollution control measures are required to be identified in the previously noted NPDES SWPPP and/or a City of San Diego Water Quality Technical Report. These plans and related implementation strategies require review and approval by the City prior to project approval, to ensure conformance with applicable standards for efforts including erosion prevention; sediment control; phased grading; and monitoring, maintenance and (as necessary) modification of implemented measures. As noted above for the NPDES Municipal Permit, it is anticipated that the City Storm Water Standards will be updated by January 2008 to reflect current requirements in the 2007 Municipal Permit.

The project site is located within the City of San Diego *University Community Plan* (City of San Diego 1987a), which includes general requirements regarding hydrology and water quality issues to: (1) maintain the natural drainage system (including Rose Canyon and portions of the described unnamed

tributaries), minimize impervious surfaces and control runoff to prevent an increase in downstream erosion; and (2) minimize development-related erosion and sedimentation through measures such as runoff control, energy dissipation, seasonal grading restrictions, erosion control and landscaping.

5.5.2 Impacts

Significance Criteria

The City of San Diego's Significance Determination Thresholds (2007a) state that a project may significantly impact the circulation and drainage of surface waters if it would result in any of the following:

- Increased flooding on or off site if there are significant impacts on upstream or downstream properties or to environmental resources
- Modifications to existing drainage patterns if there would be significant impacts on downstream properties or to environmental resources
- Grading, clearing or grubbing of more than 1.0 acre of land that would drain into a sensitive water body or stream causing uncontrolled runoff resulting in erosion and sedimentation, or
- Extraction of water from an aquifer resulting in decreased aquifer recharge resulting in significant impacts on hydrologic conditions and well-water supplies

There are no significance thresholds for water quality because compliance with water quality standards is assured through permit conditions provided by Land Development Review Engineering.

Issue 1: Would the proposal result in an increase in impervious surfaces or a substantial alteration of on and offsite drainage patterns, affecting the rate and volume of surface runoff?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

As described above under *Existing Conditions*, surface drainage from the project site is conveyed offsite through eight existing discharge "outfalls," and generally flows to the south and west through a series

of existing storm drain facilities. Offsite drainage continues south to Rose Canyon Creek through two unnamed tributaries, with Rose Canyon extending west and south from the project site vicinity and ultimately flowing into Mission Bay. While the internal project site storm drain system would be modified somewhat to accommodate the proposed project, and, in particular, Phase 1 construction improvements, no "run-on" (i.e., flows from offsite sources) would enter the project site and runoff leaving the site would utilize the existing outfall structures, storm drain systems and drainage courses described above. Accordingly, project implementation, regardless of the land use scenario constructed, would not substantially alter existing drainage patterns.

Pursuant to the proposed site design and the previously referenced drainage analysis (Rick Engineering Company 2007c), implementation of the proposed project would not result in a substantial increase in onsite impervious surface area or associated peak runoff generation for the project site.

Significance of Impacts

Project implementation would not substantially alter on- or offsite drainage patterns, and would not result in any increase in impervious surface area, runoff volumes and velocities, or associated flooding hazards. As a result, less than significant impacts are anticipated.

Mitigation Measures, Monitoring and Reporting Program

No significant impacts are identified; therefore, no mitigation is required.

Issue 2: **Would the proposal result in an increase in pollutant discharges, including downstream sedimentation, to receiving waters during or following construction? Would the proposal discharge identified pollutants to an already impaired water body?**

Issue 3: **Would the proposal result in a discharge into surface or ground waters, or in any alteration of surface or groundwater quality, including, but not limited to, temperature, dissolved oxygen, turbidity, pesticides, herbicides, fertilizers, gas, oil, or other noxious chemicals?**

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses' although the analysis remains herein for information purposes.

Potential project-related water quality impacts are associated with both short-term construction activities and long-term use of the developed project site, as described below. The short- and/or long-term movement of project generated contaminants into local waters could produce significant effects to surface and/or groundwater quality and associated biological habitats and species. As described under Regulatory Framework, one downstream receiving water, Mission Bay, is currently designated as impaired by the SWRCB due to bacterial counts and eutrophic conditions.

Short-term Construction-Related Water Quality Impacts

Potential water quality impacts related to project construction include erosion and sedimentation, the on-site use and storage of construction-related hazardous materials (e.g., fuels, etc.), the generation of debris from demolition activities, and the disposal of extracted groundwater (if required).

Erosion and Sedimentation

Project-related grading, excavation and construction activities would increase the potential for erosion and transport of material both within and downstream of the site. Specifically, construction activities would involve: (1) removal of surface stabilizing features such as pavement and structures; (2) creation of manufactured slopes; (3) excavation of existing compacted (and generally dense) surface materials; (4) redeposition of excavated materials in proposed development sites; (5) potential sediment generation from paving activities; and (6) potential erosion from disposal of extracted groundwater, if required. It should be noted that the occurrence of groundwater in sufficient quantities to result in potential disposal related erosion and sedimentation effects is considered unlikely, but cannot be conclusively eliminated based on existing data.

While fill materials would be recompacted to support project facilities and ultimately would be stabilized through installation of hardscape (e.g., pavement) or landscaping, erosion potential associated with proposed grading and excavation would be higher in the short-term than for pre-construction conditions. Developed areas would be especially susceptible to erosion between the beginning of construction and the installation of pavement or establishment of permanent cover in landscaped areas. On-site erosion and sedimentation are not considered to be significant long-term concerns, as virtually all developed areas would be stabilized through the installation of hardscape or landscaping. In addition (as described below under Long-term Operational Impacts), the project site would be subject to long-term water quality controls (including erosion and sedimentation) under the NPDES Municipal Permit and related City Storm Water Standard and SUSMP requirements.

The project Water Quality Technical Report (Appendix D) evaluates construction-related water quality requirements, including erosion and sedimentation. As noted in this document and described above under Regulatory Framework, the project would be subject to applicable elements of the City Storm Water Standards Manual and the NPDES General Construction Activity Permit. Both of these

regulatory standards require the use of appropriate BMPs to target (among other effects) construction-related erosion and sedimentation, with such requirements to be addressed through implementation of an approved SWPPP. Prior to initiation of construction, the project applicant would be required to prepare and submit a SWPPP designed to prevent and control erosion and sedimentation (as well as other contaminants in storm water runoff), with final BMP requirements to be determined as part of the project approval process. The project Water Quality Technical Report (Appendix D) identifies a number of potential erosion and sedimentation BMPs for project construction. Based on these suggestions and additional BMP sources including the *City Storm Water Standards Manual* (2003b), California Stormwater Quality Association (2003), San Diego County Association of Resource Conservation Districts (1998) and Caltrans (2003), the following types of BMPs would likely be applicable to the proposed project:

- Use of a phased construction schedule to limit the extent of grading at any given time to the smallest feasible area.

- On-site installation and storage of erosion prevention and sediment catchment devices/materials adequate to provide complete erosion and sedimentation protection for exposed portions of the site. Specifically, such devices/materials may include fiber rolls, hay bales, silt fence, mats or mulching, temporary sediment basins, gravel bag barriers, soil binders (e.g., bonded fiber matrix), temporary hydroseeding and gravel check dams.

- Restriction of construction during the rainy season (October 1 to April 15) when feasible, installation of erosion control BMPs prior to the rainy season, and implementation of a "weather triggered" (i.e., 40 percent or greater chance of rain) action plan to inspect, repair and/or upgrade BMPs as necessary.

- Installation of landscaping and structural erosion and sedimentation control efforts in applicable portions of the site as soon as feasible after construction (and prior to the rainy season to be considered a BMP).

- Use of gravel bag barriers and storm drain inlet filters (e.g., staked hay bale barriers) to minimize the influx of sediment into existing storm drains.

- Stabilization of construction ingress/egress points (e.g., through temporary paved or graveled areas), washing of vehicles in contained sumps prior to leaving the site, and daily sweeping/vacuuming of paved areas.

- Use of temporary covers (or other stabilizing methods) and containment barriers (e.g., berms or ditches) for sediment stockpiles, and use of covers for sediment transport vehicles.

- Use of temporary berms, swales, slope/terrace drains and/or brow ditches to direct runoff.

- Regular monitoring, maintenance and documentation of project erosion control efforts to ensure adequate function and proper working order.

- Use of terraced or irregular surfaces and rock or brush filters on manufactured slopes.

- Dust control through sediment stockpile and transport vehicle control (as noted above), regular watering or use of soil binders, restriction of grading during high winds, paving or gravelling construction roads, use of speed limits in unpaved areas, and phasing of grading/excavation.

Before beginning any future site improvements that would modify the drainage and storm water discharge patterns on the UTC property, all applicable federal, state and local construction and storm water discharge permits discussed above would be obtained (and/or associated requirements implemented or complied with). The City of San Diego participated in developing the standards and typical conditions of these discharge permits, most notably the NPDES permit. The requirement to obtain such permits is a standard condition of approval for the majority of development projects processed and approved within the City in a given year. The City is aware of the effective enforcement actions and measures of the local RWQCB and its own enforcement department relating to the permits. Based on this permit experience, as well as the above-described *City Storm Water Standards Manual* and documentation requirements, there is sufficient information and experience to conclude that compliance with storm water discharge permit conditions and effective implementation of BMPs would avoid any potentially significant impacts.

Construction-Related Hazardous Materials

Project construction would involve the on-site use and/or storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint and portable septic system wastes. The accidental discharge of such materials during project construction could potentially result in significant impacts to surface water quality if these contaminants reach downstream receiving waters (particularly substances such as petroleum compounds that are potentially toxic to aquatic species in low concentrations).

As noted in the project Water Quality Technical Report (Appendix D) and described under Regulatory Framework, the proposed project would be required to conform with City Storm Water Standards and NPDES General Construction Activity Permit guidelines, including approval of a SWPPP and SWSAS (as previously described under Regulatory Framework). The project Water Quality Technical Report (Appendix D) identifies a number of potential hazardous material BMPs for project construction. Based on these suggestions and the additional sources described above in this section, the following types of BMPs would likely be applicable to the proposed project:

- Restriction of paving operations during wet weather.
- Use of erosion prevention and sediment catchment devices downstream of paving activities (similar to those described above for erosion and sedimentation).
- Proper containment and disposal of paving and construction wastes or slurry (e.g., from washouts for concrete, stucco, paint, caulking, sealants or drywall plaster), through measures such as use of portable (and impermeable) sumps, and offsite waste disposal in an approved location.
- Minimizing the amount of hazardous materials stored on-site at any given time, and locating storage areas at least 50 feet from storm drains and water courses.
- Proper storage/containment and daily removal/disposal of construction wastes and debris.
- Use of covered and/or enclosed storage facilities for hazardous materials, and maintenance of accurate and up-to-date written material inventories.
- Storage of hazardous materials off the ground surface (e.g., on pallets) and in their original containers with the legibility of labels protected (or replacement of labels if damaged).
- Use of berms, ditches and/or impervious liners (or other applicable containment methods) in hazardous material use/storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of all stored materials and prevent discharge in the event of a spill.
- Placement of warning/information signs in areas of hazardous material use or storage to identify the types of materials present, as well as applicable use restrictions and containment/clean-up procedures.
- Marking of storm drains (or other appropriate locations) to discourage inappropriate hazardous material disposal.
- Provision of safety training for applicable employees in the proper use and handling of hazardous materials, as well as appropriate actions to take in the event of a spill.
- On-site storage of readily accessible absorbent and clean-up materials in applicable locations such as hazardous material storage and vehicle/equipment maintenance areas.
- Proper design, location and maintenance of hazardous waste and wastewater facilities, including removal/disposal by licensed operators in accordance with all applicable legal requirements.
- Posting of regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous location at or near the job site trailer.

- Regular inspection, maintenance and documentation of hazardous material use/operation activities and facilities to ensure proper working order.

Demolition-Related Debris Generation

Proposed site development includes the demolition of several existing buildings and paved surfaces (e.g., parking lots). These activities would generate a substantial amount of construction debris, including concrete, asphalt, glass, metal, drywall, fabric and wood materials. While the presence of hazardous substances such as lead-based paint or asbestos is considered unlikely due to the relatively recent age of the facilities to be removed, proposed demolition could potentially generate contaminants such as particulates (e.g., dust from structure razing or pavement demolition). The introduction of demolition-related particulates (or other contaminants) into the local storm drain system could potentially result in significant downstream water quality impacts, for similar reasons as described above for other potential contaminant sources. As previously noted, an approved SWPPP would be required as part project approval process, and would address potential demolition activities. Based on the previously referenced sources, the following types of BMPs would likely be applicable to project demolition activities:

- Designation of construction debris storage areas in appropriate locations (e.g., at least 50 feet from storm drain inlets) that include adequately sized watertight dumpsters and/or containment features, such as covers, to preclude rain from contacting waste materials; impervious liners; and surface containment features such as berms, dikes or ditches to prevent runon and runoff.

- Use of a licensed waste disposal operator to regularly (at least once a week) remove and dispose of construction debris in an authorized offsite location.

- Recycling construction debris for on- or offsite use whenever feasible.

- Use of dust-control measures such as watering to reduce particulate generation for pertinent locations/activities (e.g., concrete removal).

- Use of erosion prevention and sediment catchment devices in areas downstream of demolition activities (similar to those described above for erosion and sedimentation).

Disposal of Extracted Groundwater

As described above under *Existing Conditions*, seasonally perched groundwater aquifers may potentially occur on site. Accordingly, project excavation and construction activities could encounter shallow groundwater, depending on final design and schedule parameters. Disposal of groundwater extracted

during construction activities (if required) into the local storm drain system could potentially generate significant impacts to surface water quality through erosion/sedimentation (e.g., if discharged onto graded or unstabilized areas), or the possible occurrence of contaminants in local groundwater aquifers. Under such conditions, the disposal of extracted groundwater could impact downstream surface water quality and associated biological habitats through increased turbidity and the introduction of other contaminants. As described under *Regulatory Framework*, the project applicant (or contractor) would be required to obtain approval under the applicable NPDES Groundwater Extraction Waste Discharge Permit prior to disposal of extracted groundwater. Such approval would require a discharge plan that incorporates appropriate BMPs to protect downstream water quality, pursuant to site-specific conditions and regulatory requirements. While detailed measures would be determined by the RWQCB as part of the noted permit authorization process, the previously noted BMP sources identify the following types of measures to address water quality concerns associated with the disposal of extracted groundwater:

- Use of erosion prevention and sediment catchment devices (similar to those described above for erosion and sedimentation).

- Testing of extracted groundwater for contaminants prior to discharge.

- Filtering of groundwater prior to discharge (e.g., with gravel and filter fabric media).

- Treatment of extracted groundwater if required (e.g., by conveyance to a municipal wastewater treatment plant).

- Offsite removal, treatment and disposal of contaminated groundwater by a licensed operator in conformance with applicable legal requirements.

Long-Term Operational Impacts

Potential water quality impacts associated with the long-term operation and occupancy of the proposed project site include the generation and off-site discharge of urban contaminants. While the site is already developed and generates urban contaminants from sources including vehicle operation and parking, the nature of such contaminant generating activities would continue as a result of proposed project activities. Pursuant to the information provided in the project Water Quality Technical Report (Appendix D) and Section 5.5.1 of this analysis (refer to Tables 5.5-1 and 5.5-2), long-term project operation would be expected to generate the following types of contaminants: nutrients; heavy metals; organic compounds (including petroleum hydrocarbons); sediment; trash and debris; pathogens (bacteria and viruses); oxygen demanding substances; oil and grease; and chemical pesticides, herbicides and fertilizers. These types of contaminants accumulate in streets and drainage

facilities, and are picked up in runoff during storm events. Contaminant loading is notably higher during initial runoff generation (i.e., the "first flush"), and contaminant loading in arid climates (such as southern California) is higher during the first storm event of the rainy season due to accumulation of contaminants during other portions of the year. Post-development storm runoff from the project site is not projected to increase from current flows, because no net increase in impervious surface area is proposed. If an increase to impervious areas occurs within any of the eight drainage basins, design tools such as pervious pavement, check dams or other equally comparable methods may be used to help maintain post-project peak runoff and volumes equal to (or less than) pre-project conditions. Despite this fact, long-term operation of the expanded shopping center and other uses could potentially result in the off-site transport of urban contaminants and associated significant water quality impacts related to effects such as increased turbidity, oxygen depletion and toxicity to attendant species. These potential effects would be applicable to downstream receiving waters including Rose Canyon Creek and Mission Bay, which is designated as an impaired water (refer to Section 5.5.1 and Table 5.5-3).

As described in the project Water Quality Technical Report (Appendix D), project implementation would require conformance with NPDES Municipal Storm Water Permit guidelines and the related City Storm Water Standards and SUSMP. Such conformance would entail the use of site design, source control, priority project and treatment control BMPs to minimize contaminant generation and discharge to the MEP. In addition, the anticipated update of the City Storm Water Standards Manual to reflect the 2007 Municipal Permit (as previously described) may include requirements for the use of low impact development BMPs. Site design BMPs are typically non-structural in nature, and involve measures such as retention of vegetation and use of porous pavement. Low impact development BMPs are intended to minimize directly connected impervious areas and promote infiltration, and typically involve measures such as routing drainage from impervious areas into on-site landscaping (or other pervious areas). Source control measures are also generally non-structural, and include efforts such as public education, storm drain stenciling and street sweeping. Priority project BMPs are associated with specific project features such as private roads and loading, maintenance, processing and parking areas, with typical requirements involving the use of individual runoff containment and treatment (or pre-treatment) facilities. Treatment control BMPs are primarily structural in nature, and involve volume- or flow based treatment, infiltration or filtering of site runoff. Pursuant to discussions in Appendix D and the noted BMP sources, the following types of measures would likely be applicable to long-term operation of the proposed project, with specific requirements to be determined as part of the project approval process:

- Retaining existing landscaping and providing additional landscaped areas within the site, to the maximum extent feasible.

- Directing runoff from building roofs and pavement into landscaped areas to the maximum extent feasible.

- Increasing the amount of pervious surface (and associated infiltration and storm water filtering) within the site by incorporating porous pavement in applicable locations (e.g., sidewalks and walkways).

- Minimizing surface parking areas through the use of several multi-level parking structures.

- Providing tenants and customers with informational literature and/or noticing (e.g., storm drain stenciling and signs) on protection of water quality.

- Implementing (or continuing) litter control efforts, including weekly trash removal by a licensed waste management company and provision of paved, covered and enclosed dumpster areas.

- Providing covers, enclosures, drainage containment (e.g., berms and/or sumps), sanitary sewer connections and/or pretreatment facilities (e.g., clarifiers) for applicable sites including loading/unloading docks, vehicle/equipment wash areas, and outdoor processing areas (if constructed).

- Conducting (or continuing) weekly mechanical sweeping of on-site streets and parking areas to remove accumulated particulates and associated (i.e., adsorbed) contaminants before they are picked up by site runoff.

- Managing irrigation to prevent runoff through measures such as the use of automated watering schedules, and moisture/pressure sensors to shut off irrigation under appropriate conditions (e.g., precipitation events or broken sprinkler heads).

- Implementing a greenwaste management/recycling program to keep organic materials (such as grass clippings) out of site runoff.

- Use reduction through (for example) integrated pest management (IPM) weed/pest control measures such as hand removal, and proper application of chemical pesticides, herbicides and fertilizers in landscaped areas (i.e., per manufacturer recommendations and legal requirements).

- Installing in-line storm water treatment units at seven onsite locations (i.e., in association with runoff "outfall" facilities). Preliminary recommended treatment facilities for the proposed project include seven CDS® units at the noted outfalls, with specific locations provided in Appendix D. CDS units encompass mechanical separators and sorbent material (in the form of mesh or booms) to physically remove sediment (and adsorbed materials such as pesticides), trash, debris, and oil and grease. The described CDS units would be appropriately sized using flow-based numeric criteria, as described in Appendix D. Depending on final project design and

engineering/permitting requirements, other treatment facilities, such as Vortechs® Systems hydrodynamic separators or Suntree Technologies Inc., nutrient separating baffle boxes, may also be used as treatment control BMPs (Appendix D).

In addition to the CDS units described above, two ClearWater Solutions® filtration systems and two vegetated swales are currently being installed at the remaining on-site outfall near the northeastern property corner (as described in the project WQTR/Drainage Study, refer to Appendix D). As previously noted, the ClearWater units and vegetated swales are being constructed in association with Retail Building V, and are not technically part of the proposed project (Rick Engineering 2007d). ClearWater systems consist of multi-chambered structures designed to screen, settle and filter out contaminants including trash, sediment, oil and grease, metals and pathogens. Vegetated swales provide filtering of runoff as it moves through vegetation, with appropriate grades and dimensions employed to control velocity, allow adequate contact time, and maximize treatment efficiency.

- Regular monitoring and maintenance of applicable facilities and programs to ensure proper working conditions, as described in Appendix D. Monitoring, maintenance and associated reporting activities would be the responsibility of the project site owner(s) and/or a commercial property owner's or tenant's association (as appropriate).

Groundwater Quality Impacts

Because the project would not directly affect the quality of local groundwater through actions such as effluent infiltration or groundwater injection, associated potential impacts are limited to the percolation of surface runoff generated within the site. Based on these conditions, potential impacts to groundwater quality are considered less than significant for the following reasons: (1) the amount of runoff derived from the site after project implementation would be unchanged from current runoff volumes; (2) the amount of surface water from the site that percolates to groundwater aquifers is expected to be relatively minor; (3) percolation of surface runoff would provide natural filtering prior to reaching groundwater aquifers; (4) a number of measures are included in the project design to protect surface water quality (and could be supplemented under existing permit requirements, as previously described), with project derived runoff expected to meet all applicable water quality objectives; and (5) no Basin Plan groundwater quality objectives are identified for the project site or downstream areas.

Significance of Impacts

Project implementation, regardless of which land use scenario is implemented, could result in potentially significant water quality impacts from construction-related erosion and sedimentation, use and storage of hazardous materials, demolition-related debris generation, and disposal of extracted

groundwater, as well as the generation and off-site discharge of urban contaminants from long-term site operation and maintenance of the property. The project design would include a number of measures to reduce these impacts, including the implementation of BMPs related to NPDES permit and current City Storm Water Standard/SUSMP requirements. In addition, as previously noted, the anticipated update of the City Storm Water Standards Manual by January 2008 may require the use of additional and/or modified BMPs to provide conformance with the 2007 Municipal Permit. Implementation of appropriate design features, conformance with all applicable permit and regulatory requirements, and regulatory enforcement of those permit requirements by the RWQCB and City would avoid or effectively reduce all associated potential water quality impacts to below a level of significance.

Mitigation Measures, Monitoring and Reporting Program

No significant impacts are identified; therefore, no mitigation is required.

Issue 4: What types of pre- and post-construction Best Management Practices (BMPs) would be incorporated into the project's Storm Water Pollution Prevention Plan (SWPPP) to avoid impacts to the storm water system?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses although the analysis remains herein for information purposes.

As described above for Issues 2 and 3, the project design and SWPPP would include a number of BMPs intended to provide applicable regulatory conformance and avoid or mitigate potential water quality impacts. Specifically, these BMPs would address both short- and long-term effects related to issues including erosion and sedimentation, use and storage of hazardous materials, demolition-related debris generation, disposal of extracted groundwater, and generation/discharge of urban contaminants.

Significance of Impacts

Project implementation, regardless of which land use scenario is implemented, could result in potentially significant water quality impacts from both short- and long-term effects such as erosion and sedimentation, use and storage of hazardous materials, demolition-related debris, disposal of extracted groundwater, and generation/discharge of urban contaminants. The project design and SWPPP would include a number of measures to reduce these impacts, including implementation of

the described BMPs related to NPDES permit and City Storm Water Standard/SUSMP requirements. In addition, as noted above for Issue 3, the anticipated update of the City Storm Water Standards Manual by January 2008 may require the use of additional and/or modified BMPs to provide conformance with the 2007 Municipal Permit. The implementation of such measures, conformance with all applicable permit and regulatory requirements, and regulatory enforcement of the permit conditions by the RWQCB and City would reduce all associated potential water quality impacts to below a level of significance.

Mitigation Measures, Monitoring and Reporting Program

No significant impacts are identified; therefore, no mitigation is required.

5.6 PALEONTOLOGICAL RESOURCES

5.6.1 Existing Conditions

Paleontology is the science dealing with pre-historic plant and non-human animal life. Paleontological resources (or fossils) typically encompass the remains or traces of hard and resistant materials such as bones, teeth or shells, although plant materials and occasionally less resistant remains (e.g., tissue or feathers) can also be preserved. The formation of fossils typically involves the rapid burial of plant or animal remains and the formation of casts, molds or impressions in the associated sediment (which subsequently becomes sedimentary bedrock). Because of this, the potential for fossil remains in a given geologic formation can be predicted based on known fossil occurrences from similar (or correlated) geologic formations in other locations. Based on previous environmental evaluation in the project vicinity (City of San Diego 2000b), preliminary assessment of the project site (Ninyo & Moore 2002a and 2002b) and published geologic literature (California Division of Mines and Geology [CDMG] 1975), geologic formations potentially occurring within the project site are described below in order of increasing age.

Quaternary Lindavista Formation

The Lindavista Formation is early Pleistocene in age (approximately 0.5 to 1.5 million years old) and consists of near-shore (terrace) marine and non-marine sedimentary deposits. Exposures are characterized by reddish-brown interbedded coarse-grained sandstone and pebble conglomerate, with locally common claystone. Known fossil occurrences are generally rare, but include marine invertebrates such as clams, snails and scallops, as well as occasional vertebrate remains (e.g., sharks and whales). The Lindavista Formation is mapped in the project site and vicinity (CDMG 1975) and likely occurs at shallow depths within the site.

Tertiary Stadium Conglomerate

The Stadium Conglomerate is Mid-Eocene in age (approximately 42 to 45 millions years old) and generally consists of marine and non-marine massive (i.e., without notable structure, such as layering) cobble-boulder conglomerate, with coarse-grained sandstone occurring as both a matrix and individual lenses. This formation occurs in three distinct members, with all three including known vertebrate fossil occurrences such as primates and rodents. The Stadium Conglomerate is mapped within the project area (CDMG 1975), and likely unconformably underlies the Lindavista Formation on site.

Tertiary Scripps Formation

The Mid-Eocene (approximately 47 million years old) Scripps Formation consists of interbedded marine sandstone, siltstone, claystone and cobble conglomerate. Fossil occurrences in this formation

include marine vertebrate (e.g., sharks and bony fish) and invertebrate (e.g., clams, snails and crabs) remains, as well as terrestrial vertebrates (e.g., rhinoceros). The Scripps Formation is mapped within the project area (CDMG 1975), and may unconformably underlie the Stadium Conglomerate and/or Lindavista Formation on site.

Tertiary Ardath Shale

The Ardath Shale is Mid-Eocene in age (approximately 47 to 48 million years old) and consists of marine shale, siltstone and interbedded sandstone. Known fossil occurrences in the Ardath Shale include abundant and diverse assemblages of marine microfossils, invertebrates and vertebrates (e.g., sharks, rays and bony fish). The Ardath Shale is mapped in the project vicinity (CDMG 1975) and could potentially underlie the site at depth (Ninyo & Moore 2002b).

Each of the above formations has been evaluated for paleontological resource potential and assigned a sensitivity rating (Table 5.6-1, *Paleontological Resource Potential University Town Center Revitalization Site*), based on the following criteria derived from sources including Deméré and Walsh (undated) and the City of San Diego (2007a).

- High Sensitivity – Geologic formations with high sensitivity generally produce (or have strong potential to produce) vertebrate fossil remains and/or other fossil materials of substantial scientific value.

- Moderate Sensitivity – Moderate sensitivity is generally assigned to formations exhibiting either: (1) known occurrences of poorly preserved, common (i.e., abundant) or stratigraphically unimportant fossil remains; or (2) formations with a strong but unproven potential to produce important fossils (e.g., vertebrates).

- Low Sensitivity - Formations with low sensitivity typically include materials that are geologically recent and/or formed in high-energy environments (e.g., alluvial deposits), and contain relatively small numbers of invertebrate fossil remains that are not of substantial scientific value.

- Unknown Sensitivity - Unknown sensitivity is assigned to formations which are not currently known to produce paleontological resources, but which have some potential for producing such remains based on their sedimentary origin.

- No Sensitivity – Formations with no sensitivity include materials with no potential to produce fossil remains due to their molten origin, such as granitic or volcanic rocks.

Table 5.6-1
PALEONTOLOGICAL RESOURCE POTENTIAL UNIVERSITY TOWNE CENTER REVITALIZATION SITE

GEOLOGIC FORMATION	SENSITIVITY RATING
Lindavista Formation	Moderate
Stadium Conglomerate	High
Scripps Formation	High
Ardath Shale	High

Source: City of San Diego 2007a.

5.6.2 Impacts

Significance Criteria

The City of San Diego's Significance Determination Thresholds (2007a) assess potential impacts to moderate and high sensitivity geologic formations as follows: (1) significant impacts to high sensitivity geologic formations would occur if proposed grading involves more than 1,000 cubic yards (cy) of material and extends to depths of 10 feet or more; and (2) significant impacts to moderate sensitivity geologic formations would occur if proposed grading involves more than 2,000 cy of material and extends to depths of 10 feet or more.

Issue 1: Would the proposal result in the loss of significant paleontological resources?

The proposed project and all the various Master PDP land use scenarios are collectively discussed herein, with no one land use scenario having the potential to cause significantly greater land use impacts than the others. Therefore, no worst-case scenario is identified. Therefore, no worst-case scenario is identified. It should be noted that the project applicant has decided to not pursue hotel or office uses although the analysis remains herein for information purposes.

As described above, the project site is underlain by one or more geologic formations exhibiting moderate to high paleontological resource sensitivity. Project related grading for the proposed project, regardless of which land use scenario is constructed, would involve cut quantities that substantially exceed the noted significance criteria of 1,000 to 2,000 cy, and proposed excavations up to a maximum depth of approximately 40 feet. Based on these conditions, project implementation would almost certainly result in excavation of previously undisturbed portions of the Lindavista Formation, and may potentially affect previously undisturbed portions of the Stadium Conglomerate, Scripps Formation and/or Ardath Shale. It should be noted that potential impacts to the Ardath Shale are considered unlikely, due to the uncertain occurrence and (if it does occur) probable depth of this formation on site (Ninyo & Moore 2002b).

Construction of the replacement sewer line by the Monte Verde applicant, which the project applicant would contribute its fair-share to fund the improvements (see MM 5.7-1), would also result in significant impacts to paleontological resources. An analysis of the off-site sewer line is provided in the Monte Verde Final EIR (SCH No. 2003091106), which is incorporated by reference herein. Mitigation measures for the paleontological impacts were identified in the Monte Verde Final EIR and were made conditions of approval for that project. The adopted measures consist of construction monitoring and reporting.

Significance of Impacts

Due to the on-site presence of geologic formations with moderate to high resource sensitivity and the nature of proposed grading/excavation, implementation of the project would potentially result in *significant impacts to paleontological resources. The mitigation measures described below would* reduce impacts associated with paleontological resources to below a level of significance.

Mitigation Measures, Monitoring and Reporting Program

The following measures shall be implemented by the project applicant to mitigate impacts to paleontological resources below a level of significance.

Prior to Pre-Construction Meeting

MM 5.6-1 Prior to the issuance of a Notice to Proceed (NTP) or any construction permits, *including, but not limited to, the first Grading Permit, Demolition Plans/Permits and* Building Plans/Permits the Assistant Deputy Director (ADD) environmental designee of the City's Land Development Review Division (LDR) shall verify that the following statement is shown on the grading and /or construction plans as a note under the heading Environmental Requirements: "University Towne Center Revitalization Project is subject to Mitigation, Monitoring and Reporting Program and shall conform to the mitigation conditions as contained in the University Towne Center Revitalization Project EIR (SCH No. 2002071071; Project No. 2214)."

MM 5.6-2 The project applicant shall submit letters of qualification to the ADD

Prior to the recordation of the first final map, NTP or any permits, including but not limited to, issuance of a Grading Permit, Demolition Plans/Permits and Building Plans/Permits, the applicant shall provide a letter of verification to the ADD stating that a qualified paleontologist (the Monitor), as defined in the City of San Diego Significance Determination Guidelines for Paleontological Resources, has been retained to implement the monitoring program.

M 5.6-3 The project applicant shall submit to the mitigation monitoring coordinator (MMC) a second letter containing names of monitors

(A) At least thirty days prior to the pre-construction meeting, a second letter shall be submitted to the MMC, which includes the names of the Principal Investigator (PI) and all persons involved in the paleontological monitoring of the project.

(B) The MMC shall provide the Plan Check Department with a copy of both the first and second letter.

MM 5.6-4 The monitor shall perform a records search prior to pre-construction meeting

At least thirty days prior to the pre-construction meeting, the Monitor shall verify that a records search has been completed and updated as necessary, and he/she shall be prepared to introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities. Verification includes, but is not limited to, a copy of a confirmation letter from the San Diego Natural History Museum, other institution or, if the record search was in-house, a letter of verification from the PI stating that the search was completed.

Pre-Construction Meeting

MM 5.6-5 The monitor shall attend preconstruction meetings

(A) Prior to beginning any work that requires monitoring, the Applicant shall arrange a pre-construction meeting that shall include the Monitor, construction manager and/or grading contractor, resident engineer (RE), building inspector (BI) and the MMC. The Monitor shall attend any grading related pre-construction meetings to make comments and/or suggestions concerning the paleontological monitoring program with the construction manager and/or grading contractor.

(B) If the Monitor is not able to attend the pre-construction meeting, the RE or BI, as appropriate, shall schedule a focused pre-construction meeting for the MMC, Monitor, construction manager and appropriate contractor's representative to review the job on site prior to the start of any work that requires monitoring.

MM 5.6-6 The monitor shall identify areas to be monitored

At the pre-construction meeting, the Monitor shall submit to the MMC a copy of the site/grading plan (reduced to 11"x17") that identifies areas to be monitored.

MM 5.6-7 The monitor shall submit a schedule to the MMC indicating when monitoring will occur

Prior to the start of work, the Monitor shall also submit a construction schedule to the MMC through the RE or BI, as appropriate, indicating when and where monitoring is to begin. In addition, the Monitor shall notify the MMC directly of the start date for monitoring.

During Construction

MM 5.6-8 The Monitor shall be present during grading/excavation

The Monitor shall be present at all times during the initial cutting of previously undisturbed formations with high and moderate resource sensitivity, and he/she shall document activity via the Consultant Site Visit Record (form). This form shall be faxed to the RE or BI, as appropriate, and the MMC each month.

MM 5.6-9 Discoveries

(A) *Minor Paleontological Discovery*

In the event of a minor paleontological discovery (small pieces of broken common shell fragments or other scattered common fossils) the Monitor shall notify the RE or BI, as appropriate, that a minor discovery has been made. The determination of significance shall be at the discretion of the Monitor. He/she shall continue to monitor the area and immediately notify the RE or BI, as appropriate, if a potential significant discovery emerges.

(B) *Significant Paleontological Discovery*

In the event of a significant paleontological discovery, and when requested by the Monitor, the RE or BI, as appropriate, shall be notified to divert, direct or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains. The determination of significance shall be at the discretion of the Monitor. The paleontologist with PI level evaluation responsibilities shall also immediately notify the MMC staff of such finding at the time of discovery. MMC staff will coordinate with appropriate LDR staff.

MM 5.6-10 Night Work

(A) If night work is included in the contract:

(1) The extent and timing shall be presented and discussed at the pre-construction meeting.

(2) The following procedures shall be followed:

(a) *No Discoveries*

In the event that nothing was found during night work, the PI shall record the information on the Site Visit Record Form.

(b) *Minor Discoveries*

All minor discoveries shall be processed and documented using the existing procedures under measure 9(A) above with the exception that the RE shall contact the MMC by 9 A.M. the following morning to report and discuss the findings.

(c) *Potentially Significant Discoveries*

If the PI determines that a potentially significant discovery has been made, the procedures under 9(B) above shall be followed, with the exception that the RE shall contact the MMC by 9 A.M. the following morning to report and discuss the findings.

(B) If night work becomes necessary during the course of construction:

(1) The construction manager shall notify the RE or BI, as appropriate, a minimum of 24 hours before the work is to begin.

(2) The RE or BI, as appropriate, shall notify the MMC immediately.

(C) All other procedures described above shall apply, as appropriate.

MM 5.6-11 Notification of Completion

The Monitor shall notify the MMC and the RE or BI, as appropriate, of the end date of monitoring.

Post-Construction

The Monitor shall be responsible for preparation of fossils to a point of curation as defined by the City of San Diego Paleontological Guidelines.

MM 5.6-12 The monitor shall submit a letter of acceptance from a local qualified curation facility

The Monitor shall be responsible for submittal of a letter of acceptance to the ADD from a local qualified curation facility. A copy of this letter shall be forwarded to the MMC.

MM 5.6-13 If fossil collection is not accepted, the monitor shall contact LDR for alternatives

If the fossil collection is not accepted by a local qualified facility for reasons other than inadequate preparation of specimens, the Monitor shall contact LDR to suggest an alternative disposition of the collection. The MMC shall be notified in writing of the situation and resolution.

MM 5.6-14 The monitor shall record sites with San Diego Natural History Museum

The Monitor shall be responsible for the recordation of any discovered fossil sites with the San Diego Natural History Museum.

MM 5.6-15 Final Results Report

(A) Prior to the release of the grading bond, two copies of the Final Results Report, which describes the results, analysis and conclusions of the above paleontological monitoring program (with appropriate graphics), shall be submitted to the MMC for approval by the ADD. The Final Results Report shall be submitted regardless of the results (e.g., if negative).

(B) The MMC shall notify the RE or BI, as appropriate, of receipt of the report.

5.7 PUBLIC UTILITIES

5.7.1 Existing Conditions

Water

The City of San Diego Water Department provides water service to more than ~~200~~ 330 square miles of developed land including the project site. The proposed project site is located in the University City area 610 pressure zone. The existing 30- and 36-inch-diameter Miramar Extension Pipeline provides water to UTC and its vicinity (Dexter Wilson Engineering 2004). The existing Miramar Extension Pipeline begins as a 36-inch-diameter main near the intersection of Eastgate Mall and Eastgate Court (north of UTC). From this intersection, the pipeline extends west in Eastgate Mall to Genesee Avenue and divides into a northerly 24-inch-diameter main and a southerly 30-inch-diameter main. The 30-inch-diameter Miramar Extension Pipeline continues to the intersection of Genesee Avenue and La Jolla Village Drive, where the pipeline turns west. At this intersection, the pipeline is connected to a 16-inch-diameter water main loop that surrounds UTC. The water main loop is located in La Jolla Village Drive, Genesee Avenue, Nobel Drive and Towne Centre Drive. Several 12- and 16-inch-diameter distribution mains connect this loop to the 30-inch-diameter Miramar Extension Pipeline.

The North City Water Reclamation Plant (NCWRP), operated by the City of San Diego, is located approximately 0.5 mile east of UTC on Eastgate Mall. A 36-inch-diameter reclaimed water pipeline extends westerly from the NCWRP under I-805 and continues in Executive Drive to Regents Road and north. Distribution piping (6 to 16 inches in diameter) from the 36-inch-diameter pipeline provides reclaimed water for irrigation to the UTC area. Distribution pipelines are located in the following roads: (1) Towne Centre Drive from Executive Drive to Nobel Drive, (2) Nobel Drive from Towne Centre Drive to west of Regents Road and (3) Regents Roads from Executive Drive to south of Nobel Drive (Dexter Wilson Engineering 2004).

The average annual potable water use for the existing development at UTC is currently ~~109,307~~137,281 gallons per day (gpd) based on water meter records from ~~August 2000~~January 2004 through July ~~2002~~2007 (Dexter Wilson Engineering ~~2004~~2008). This water usage reflects both potable and irrigation demand. ~~Potable~~Non-irrigation uses currently account for ~~55,000~~96,703 gpd, while irrigation accounts for about ~~54,000~~40,578 gpd of existing demand. The UTC site is within the Recycled Water Service Area of the NCWRP, but is not currently serviced by the recycled water system, because UTC was built before the plant. Water supply is discussed in Section 5.8, *Water Conservation*.

Sewer

Existing wastewater service is currently provided to the proposed project site by the City of San Diego Metropolitan Wastewater Department via gravity sewer mains that drain into Rose Canyon Trunk Sewer. An 8-inch-diameter main located in Nobel Drive extends east to Towne Centre Drive, where it connects to an 8-inch-diameter main that continues south and connects to the Rose Canyon Trunk Sewer. Two mains (10- and 12-inch-diameter) are located in Genesee Avenue turn west in DeCoro Street, continue south in a canyon paralleling Genesee Avenue where they drain into Rose Canyon Truck Sewer. At the node where UTC connects to the sewer line within Genesee Avenue (node 36), sewage currently flows at a rate of 1.09 million gpd (Rick Engineering Company 2004). This sewer line currently is flowing at one-half to two-thirds full, which is considered deficient by the City of San Diego.

Stormwater Drainage

The project site is entirely developed and encompasses numerous commercial structures and related facilities (e.g., surface and structural parking areas) associated with the existing UTC shopping center. As stated in Section 5.5, *Hydrology/Water Quality*, existing on-site drainage is collected and conveyed through a number of on-site private storm drain facilities, and it flows off site and into existing public storm drains through approximately nine discharge "outfalls." Drainage within the off-site storm drains flows generally to the south or west and into two unnamed tributaries to Rose Canyon Creek. The first of these tributaries extends south-southeast from the southeastern site boundary for approximately 2,800 feet before entering Rose Canyon Creek. The second tributary is located approximately 400 feet west of Genesee Avenue and south of Nobel Drive, and it flows approximately 2,000 feet south-southeast from this point to Rose Canyon Creek. Rose Canyon continues west-southwest for approximately two miles from its intersection with Genesee Avenue to I-5, where it continues south for an additional 3.5 miles before entering the northeastern portion of Mission Bay.

Solid Waste Disposal

Solid waste services are provided to the project area by the City of San Diego Environmental Services Department (ESD). The ESD collects and disposes of approximately 1.4 million tons of refuse annually in the City of San Diego (City of San Diego 2005). Solid waste from the project would be transported to the Miramar Landfill, located approximately five miles southeast of the project site at 5180 Convoy Street. The Miramar Landfill, which encompasses approximately 800 acres (of which approximately 470 acres are permitted for disposal), is located on U.S. government property leased and operated by the City of San Diego. Although the landfill only accepts non-hazardous solid wastes generated in the City of San Diego and surrounding areas, a Household Hazardous Waste Transfer Facility is also located on site. Approximately 8,000 tons per day of solid waste are transported to the landfill, which has an estimated remaining capacity of 23 million cy in total capacity.

The Miramar Landfill is expected to reach full capacity in approximately four years (i.e., November 2011; City of San Diego 2003). The City is anticipated to select a potential landfill site to accommodate future disposal needs after the Miramar Landfill has closed. Oak Canyon and Spring Canyon are two alternative sites currently being considered. Both sites are located on the eastern edge of City limits near State Route 52. Currently, the Sycamore and Otay landfills are planned to be used once the Miramar site is closed.

The State of California mandated, through the Integrated Waste Management Act of 1989 (AB 939), achievement of a 25 percent reduction in solid waste by January 1, 1995 and a 50 percent reduction by January 1, 2000. To date, the 1995 goal has been met, but the City is currently working to meet the 50 percent reduction goal. The City has filed for an extension but is still under mandate by the Integrated Waste Management Act to meet the 50 percent reduction. In order to meet these standards, the City has adopted the 1994 Source Reduction and Recycling Element (SRRE). SRRE provides a framework for programs complying to the state waste reduction mandates. Additionally, a City of San Diego Waste Reduction and Recycling Plan 1988-1992, and Council Policy 900-06 have both been adopted requiring individual developments to incorporate recycling and waste reduction measures.

5.7.2 Impacts

Significance Criteria

The City of San Diego has published significance criteria guidelines for public services and utilities in their Significance Determination Thresholds (2007a). These are summarized below.

Impacts to utilities (natural gas, electrical power, solar energy, communication systems, water, sewer, stormwater drainage, and solid waste disposal) are typically evaluated on a project-by-project basis, with each utility provider having their own threshold criteria for utility capacity and service expansion. Each provider is responsible for forecasting demand for their services based upon a variety of methods. Direct impacts to utilities are not typically evaluated under CEQA, in view of the utility development processes that are carried out separately from CEQA review. However, secondary impacts to natural resources and growth inducement impacts, resulting from substantial alterations or expansions to utility facilities or changes in utility service areas of districts, could be significant.

Issue 1: Would the proposal result in a need for new systems or require substantial alterations to existing utilities including water, sewer, stormwater drainage, and solid waste disposal?

The analysis is based on the worst-case Maximum Residential scenario in the Master PDP.

Water

The proposed project would create a maximum demand of ~~160,000~~ 205,537gpd of potable water for the entire project site, which would be an incremental increase of ~~105,000~~68,265 gpd over existing levels since reclaimed water would be used to irrigate landscaping (Table 5.7-1, *Water Demands By Master PDP Land Use Scenario*). Under the Master PDP land use scenarios, water demand would be greater than the proposed project (Table 5.7-1). The land use scenario that would utilize the most water is the Maximum Residential scenario, which includes the addition of 610,000 sf of retail and 725 residential units. Under this scenario, the ~~proposed~~ project would require approximately ~~226,250~~269,731 gpd of potable water~~, for a total demand of 281,250 gpd for the entire site~~which would be an incremental increase of 132,450 gpd over existing levels~~;~~ since landscaping would be irrigated with reclaimed water. This would be the worst-case water demand projected for the UTC property under the proposed Master PDP. These demand amounts are conservative, as the proposed project would include water efficiency measures proposed under the UTC green program and LEED-ND pilot project (refer to Section 5.8, *Water Conservation*).

The proposed project would require the relocation of on site (private) water lines. However, it was determined, through a study by Dexter Wilson Engineering (2004), that no additional off-site infrastructure would be required to provide water service to the proposed project. The current, off-site water system infrastructure is adequate to satisfy the ultimate demands of the proposed project as well as fire protection flow.

The project ~~is anticipated~~will be required to connect to a reclaimed water line for irrigation use in accordance with SDMC Section 64.0807. The estimated irrigation water demand for the proposed project is ~~107 gpd, generating an estimated total demand of approximately 54,000 gpd for recycled water following completion of the proposed project~~40,578 gpd (Dexter Wilson Engineering ~~2004~~2008). This estimate may change once more detailed landscape plans are developed; however, it is not anticipated that landscaping would be greatly expanded (it is likely that landscaping may be reduced slightly due to removal of large landscape berms and replacing existing landscaping with more drought tolerant species). No off-site reclaimed water improvements would be required for the proposed project (other than site-specific irrigation retrofits to be implemented off-set projects as described in Section 5.8 of this report) and no permits are needed to provide reclaimed water service to the project area. Impacts to water service are anticipated to be less than significant. Impacts to water supply are discussed in Section 5.8, *Water Conservation*.

Table 5.7-1
WATER DEMANDS BY
MASTER PDP LAND USE SCENARIO

Land Use Scenario*	Land Use				Total Water Demand (gpd)**	
	~~Retail (50 gpd/ 1,000 sf)~~	~~Multi-family Residential (270 gpd/ du)~~	~~Hotel (100 gpd/ room)~~	~~Office (50 gpd/ 1,000 sf)~~	~~Proposed Project~~ Potable Water Demand Based on Historic Water Meter Data[1] (gpd/AFY)	~~Revitalized Center (Existing Plus Proposed)~~ Increase from Existing Potable Use Based on Historic Water Meter Data[2] (gpd/AFY)
Proposed Project	~~37,500~~	~~67,500~~	--	--	~~105,000~~ 205,537/230.2	~~160,000~~ 68,256/76.5
Maximum Residential	~~30,500~~	~~195,750~~	--	--	~~226,250~~ 269,731/302.2	~~281,250~~ 132,450/148.4
Maximum Hotel	~~26,250~~	--	~~18,500~~	--	~~44,750~~ 163,037/182.6	~~99,750~~ 25,756/28.9
Maximum Office	~~26,250~~	--	--	~~1,750~~	~~28,000~~ 146,392/164.0	~~83,000~~ 9,111/10.2
All Uses	~~18,750~~	~~67,500~~	~~10,000~~	~~1,750~~	~~98,000~~ 183,225/205.3	~~153,000~~ 45,944/51.5
No Hotel	~~21,250~~	~~135,000~~	--	~~1,750~~	~~158,000~~ 218,281/244.5	~~213,000~~ 81,000/90.7
No Office #1	~~21,250~~	~~81,000~~	~~25,000~~	--	~~127,250~~ 209,026/234.2	~~182,250~~ 71,745/80.4
No Office #2	~~17,500~~	~~164,700~~	~~25,000~~	--	~~207,200~~ 252,413/282.8	~~262,200~~ 115,132/129.0
Commercial Only[3]					165,037/184.9	27,756/31.1

Source: Dexter Wilson 2008~~7~~.

~~* The various land use scenarios are defined in Table 3-2 of this report~~

~~** Assumes that reclaimed water would be used for irrigation. If potable water is used for irrigation, an additional 54,000 gpd would be required.~~

Notes:

[1] This figure refers to the potable water demand of the project once completed. Because the project will utilize recycled water for irrigation, this figure does not include water used for irrigation purposes.

[2] Existing potable use refers to the daily demand for potable water for both domestic and irrigation purposes for the existing UTC shopping center, which is approximately 137,281 gpd and 40,578 gpd, respectively.

[3] Commercial Only refers to the water use associated with 750,000 sq ft of commercial included in the proposed project without the residential units.

Sewer

The proposed project is anticipated to generate approximately 236,000 gallons of wastewater per day (Rick Engineering Company 2007b). The sewage generation for the Master PDP land use scenarios also was calculated. As shown in Table 5.7-2, *Sewage Generation by Master PDP Land Use Scenario*, the No Office No. 2 scenario with 350,000 sf of retail, 610 residential units and 250 hotel rooms would be the worst-case sewage demand scenario and would generate approximately 358,000 gpd. It should be noted that the sewage generation amounts are worst case and do not take into account water conservation measures outlined in Section 5.8, *Water Conservation*.

Table 5.7-2
SEWAGE GENERATION BY MASTER PDP LAND USE SCENARIO

Land Use Scenario	Sewage Generation (gpd)
Proposed Project	236,000
Maximum Residential	356,000
Maximum Hotel	187,000
Maximum Office	132,000
All Uses	210,000
No Hotel	260,000
No Office No. 1	280,000
No Office No. 2	358,000

Source: Rick Engineering 2007b

The proposed project would relocate many of the on-site sewer lines and place them in private easements, as described in Section 3.0, *Project Description*. The on-site lines would convey wastewater to the off-site collection system. The City of San Diego requires that sewer lines flow at or below half full. The flow rates of the proposed project would constitute less than half of sewer line flow rates; however, due to an existing deficiency in the sewer line within Genesee Avenue, renovation of UTC would cause this sewer line to be undersized, thereby resulting in a cumulatively significant impact (Rick Engineering Company 2007b). Project-level impacts to sewer services would be less than significant.

The recently approved Monte Verde project has addressed the need for the sewer upgrade in University City by evaluating and agreeing to upsize the sewer line between Rose Canyon and the Monte Verde project site. The environmental impacts of the sewer upgrade have been addressed in the Final EIR for the 560-Unit Monte Verde Project, certified by the City of San Diego on September 17, 2007. That upsizing will fully mitigate this project's cumulative impacts on sewer capacity, as the Monte Verde site is located adjacent to the University Towne Center site. The University Towne Center project applicant will still be required to contribute its fair share amount, which may then be

used to reimburse the Monte Verde project applicant for any expenses associated with upsizing the sewer line. Regardless of whether the sewer upgrade is completed by the Monte Verde project applicant, the University Towne Center project is not permitted to connect to the sewer line unless and until the line has been upsized.

The sewer expansion is expected to have environmental impacts on biological resources, historical resources, and visual effects/neighborhood character as discussed in summary fashion in this report. According to the Monte Verde Final EIR and findings previously adopted by the City, the impacts to biological and historical resources will be mitigated to a level below significance. Impacts on visual effects/neighborhood character may remain significant if the sewer line is not placed underground.

Stormwater Drainage

As stated in Section 5.5, *Hydrology/Water Quality*, the internal project site storm drain system would be modified somewhat to accommodate the proposed renovation; however, no "run-on" (i.e., flows from off-site sources) would enter the project site and runoff leaving the site would utilize the existing outfall structures, storm drain systems and drainage courses described above. Pursuant to the proposed site design and the previously referenced drainage assessment (Rick Engineering Company 2003), implementation of the proposed project would not result in an increase in peak runoff generation. Accordingly, project implementation would not substantially alter existing drainage patterns or require an alteration or upgrade of the stormwater collection system on or off site.

Solid Waste Disposal

Solid waste from the site would be taken to the Miramar Landfill. Project construction would generate an unknown quantity of construction and demolition debris when 566,000 square feet of the existing center and approximately 20 acres of surface parking are redeveloped. However, with implementation of the LEED-ND program, the project applicant has committed to recycling a minimum of 50 percent of construction and demolition waste. The project applicant currently utilizes an online procurement program which provides recycled or otherwise "green" options for most purchases, which would continue in the future. The project also would entail the utilization of recycled and sustainable materials in the new construction. The project applicant would purchase furnishings and flooring materials made from recycled materials. To achieve the LEED-ND certification, a number of waste reduction measures would be integrated into the project design.

Based on the ESD waste generation rates, the proposed project would produce a maximum of 2,400 tons of solid waste per year once fully operational. The Maximum Residential scenario represents a worst-case scenario and would result in a maximum of 2,578 tons of solid waste per year. These maximum waste production amounts were calculated using general waste generation rates and do not reflect the various waste reduction means that could be incorporated into the proposed project, such as

recycling construction materials and designating recyclable material collection areas in buildings on site. The project applicant proposes to implement a comprehensive recycling and composting program for tenants, shoppers and residents. According to the ESD, new residential developments that generate more than 60 tons of solid waste per year and new commercial developments that generate more than 52 tons per year have the potential to impact the Miramar Landfill capacity significantly.

State of California regulations for solid waste (California PRC § 41700 - 41721.5) require that each region have a plan with adequate capacity to manage or dispose of solid waste for at least fifteen years into the future. The solid waste plan for the San Diego County region is contained in the Integrated Waste Management Plan, Countywide Siting Element (County of San Diego 2004). The plan has the goals of ensuring sustainability, conserving natural resources and landfill capacity and meeting state-mandated diversion requirements. The plan shows that unless a new landfill is opened and/or existing landfills are expanded, the region has insufficient disposal capacity. Plan policies 2.1 and 2.2 encourage the efficient use of existing disposal sites, and extension or expansion of in-county capacity. SANDAG's 2004 Regional Comprehensive Plan, Chapter 4F provides similar language regarding "maximizing existing disposal capacity." The City also is currently preparing a Long-term Waste Management Options Strategic Plan, which will identify and evaluate activities, programs, facilities, and technologies that will provide sustainability, resource conservation, source reduction, recycling, diversion and disposal options, as well as extend the life of Miramar Landfill.

The Miramar Landfill is scheduled for closure in January 2012. In response to the pending closure, the City of San Diego is considering its options regarding vertical expansion of the Miramar Landfill. The City recently circulated the Draft EIR for Miramar Landfill Service Life Extension/Height Increase (City of San Diego 2007b), which addresses the possible vertical expansion of the landfill by a maximum of 20 feet. This would extend its capacity to accept waste for an additional four years (until 2016).

Two other landfills, Allied Waste's Sycamore Landfill and Otay Landfill, provide disposal capacity within the urbanized region. The Sycamore Landfill is located to the east of Miramar within the City's boundaries. The Otay Landfill is located within an unincorporated island within the City of Chula Vista. The Sycamore Landfill has been proposed for expansion. As proposed, this expansion would be more extensive than the expansion proposed for the Miramar Landfill and would make many modifications to the facility, including greatly increasing the through-put volumes.

Significance of Impacts

Impacts to water service infrastructure, as well as stormwater drainage, would be less than significant. Project-specific impacts to sewer services would not be significant following buildout of the proposed project, although cumulatively significant impacts to sewer line capacity would be expected due to a

current deficiency in sewer line capacity. Anticipated solid waste generation following the buildout of the proposed project would result in significant impacts on both a project and cumulative level, because more than 52 to 60 tons of waste per year would be generated by the project.

Mitigation Measures, Monitoring and Reporting Program

No significant impacts to water service infrastructure and stormwater collection systems are identified as a result of the proposed project and, therefore, no mitigation is required. The following measures are required to address cumulative impacts to sewer line capacity and project and cumulative impacts to landfill capacity. Implementation of these measures would reduce impacts to less than significant levels.

MM 5.7-1 Prior to receipt of final certificate of occupancy for Phase 1, the project applicant shall contribute their fair share to the cost of upsizing and relocating the sewer line within Genesee Avenue, satisfactory to the City Engineer. The upsizing must occur prior to the site exceeding existing sewage flows that contribute to the line. If the Monte Verde project does not construct the sewer line, the project applicant would have the option to take over construction of the sewer line under the guidance of the City of San Diego.

MM 5.7-2 Prior to Preconstruction (Precon) Meeting

Land Development Review (LDR) Plan Check - Prior to issuance of any permit, *including but is not limited to, any grading or any other construction permit*, the Assistant Deputy Director (ADD) shall verify that all the requirements of the waste management plan have been shown and/or noted on the Demolition and/or Grading Plans (construction documents).

1. Prior to issuance of a demolition permit, the permittee shall be responsible to arrange a Precon Meeting. This meeting shall be coordinated with the Mitigation Monitoring Coordinator (MMC) to verify that implementation of the waste management plan shall be performed in compliance with the plan approved by LDR and the ESD, to ensure that impacts to solid waste facilities are mitigated to below a level of significance.

2. The plan (construction documents) shall include the following elements for grading, construction and occupancy phases of the project as applicable:

    a. Tons of waste anticipated to be generated

b. Material type of waste to be generated

c. Source separation techniques for waste generated

d. How materials will be reused on site

e. Name and location of recycling, reuse or landfill facilities where waste will be taken if not reused on site

f. A "buy recycled" program

g. How the project will aim to reduce the generation of construction/demolition debris

h. A plan of how waste reduction and recycling goals will be communicated to subcontractors

i. A timeline for each of the three main phases of the project as stated above

3. The plan shall strive for a goal of 50 percent waste reduction.

4. The plan shall include specific performance measures to be assessed upon the completion of the project to measure success in achieving waste minimization goals. The permittee shall notify MMC and ESD when: (1) a construction permit is issued; (2) construction begins; and (3) demolition ends.

The permittee shall arrange for progress inspections and a final inspection, as specified in the plan and shall contact both MMC and ESD to perform these periodic site visits during construction to inspect the process of the project's waste diversion efforts. Notification shall be sent to:

MMC/Tony Gangitano
Mitigation Monitoring Coordination
9601 Ridgehaven Court
Suite 320, MS 1102B
San Diego, CA 92123-1636
(619) 980-7122

Environmental Services Department
9601 Ridgehaven Court
Suite 320, MS 1103B
San Diego, CA 92123-1636
(858) 492-5010

5. Prior to the issuance of a grading permit, the applicant shall receive approval from the ADD that the waste management plan has been prepared, approved and implemented. Also prior to the issuance of the grading permit, the applicant shall submit evidence to the ADD that the final demolition/construction report has been approved by MMC and ESD. This report shall summarize the results of implementing the above waste management plan elements, including: the actual waste generated and diverted from the project, the waste reduction percentage achieved, how that goal was achieved, etc.

MM 5.7-3 Precon Meeting

1. At least 30 days prior to beginning any work on the site, demolition and/or grading, for the implementation of the Mitigation Monitoring and Reporting Program (MMRP), the permittee is responsible to arrange a Precon Meeting that shall include: the Construction Manager or Grading Contractor, MMC and ESD, as well as the Resident Engineer (RE), if there is an engineering permit.

2. At the Precon Meeting, the permittee shall submit reduced copies (11" x 17") of the approved waste management plan to MMC (two copies) and ESD (one copy).

3. Prior to the start of demolition, the permittee or Construction Manager shall submit a construction schedule to MMC and ESD.

MM 5.7-4 During Construction

The permittee or Construction Manager shall call for inspections by both MMC and ESD, who will periodically visit the construction site to verify implementation of the waste management plan.

MM 5.7-5 Post Construction

1. After completion of the implementation of the MMRP, a final results report shall be submitted to MMC to coordinate the review by the ADD and ESD.

2. Prior to final clearance of any demolition permit, issuance of any grading or building permit, release of the grading bond and/or issuance of Certificate of Occupancy, the applicant shall provide documentation to the ADD of LDR and the ESD that the waste management plan has been effectively implemented.

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5.8 WATER CONSERVATION

5.8.1 Existing Conditions

The City of San Diego Water Department is the agency in charge of providing potable and recycled water service to the proposed project. The San Diego County Water Authority (Authority) is the regional water agency responsible for water deliveries to San Diego County.

Regional Water Supply

~~The San Diego County Water Authority (Authority) is the regional water agency responsible for water deliveries to San Diego County.~~ The Authority supplies the majority of the water ~~(75 to 95 percent; 83 percent in fiscal year [FY] 2000)~~ to the western third of San Diego County, which includes the UTC area. Approximately 35 percent of the water delivered by the Authority is supplied to the City of San Diego Water Department. Total water use in the Authority's service area for FY 200~~5~~0 was 6~~42,152~~ ~~95,000~~ acre-feet (AF) ~~or 226.5 billion gallons~~. Municipal and industrial uses account for approximately 8~~7~~0 ~~to 85~~ percent of water demand in the Authority's service area, while agricultural uses account for approximately 1~~35 to 20~~ percent (Authority 200~~7~~0).

Projected Water Supply and Demand

On November 17, 2005 the Authority Board approved the 2005 Urban Water Management Plan (2005 UWMP) and on April 26, 2007 adopted the Updated 2005 UWMP~~In 2000, the Authority Board of Directors approved the *2000 Urban Water Management Plan* (2000 Plan)~~, which discusses historic and future water demands for the region and outlines how the Authority plans to meet future demands. In addition, the *Regional Water Facilities Master Plan* (200~~4~~2 Master Plan) was drafted in 200~~4~~2 and provides an update of anticipated water supply and demand. In the Updated 200~~5~~0 ~~Plan~~UWMP, the Authority ~~assumed an existing~~projected an average ~~dependable~~ yield of ~~25,000~~59,649 AF ~~and a normal yield of 85,600 AF (based on an historic 24-year average)~~ from local surface waters (Authority 200~~6~~5). In 200~~5~~0, approximately 1~~1,479~~3,~~700~~ AF of recycled water was used in the Authority's service area. Nearly all of the recycled water distributed in the service area is used for agriculture and landscape irrigation. The Authority anticipates increased usage of recycled water as the capacity of local wastewater reclamation increases through the development of new facilities and improvement of existing facilities.

The Updated 200~~5~~0 ~~Plan~~ UWMP and 200~~4~~2 Master Plan provide a comparison between projected water use and anticipated water supply sources from 2005 to 20~~3~~20. The Updated 200~~5~~0 ~~Plan~~ UWMP projects water sources and demands for average/normal water years through the year 20~~3~~20 and during single dry water year and multiple dry water year conditions.

It is estimated that in 2032020, the water demand for the region would be approximately 829,03013,000 AF per year (Authority 20070 and 2002). The Authority has predicted that 20320 water supplies would meet demands; thus, no water shortages are anticipated. Table 5.8-1, *Average/Normal Water Year Supply and Demand Assessment*, below, provides the Authority's projections of water supply and demand during average/normal water years in five-year increments through 20202030.

~~Table 5.8-1~~
~~AVERAGE/NORMAL WATER YEAR SUPPLY AND DEMAND ASSESSMENT (AF/year)~~

~~Water Sources~~	~~2010~~	~~2015~~	~~2020~~
~~Local Supplies~~			
~~Surface Water~~	~~85,600~~	~~85,600~~	~~85,600~~
~~Water Recycling~~	~~45,100~~	~~51,800~~	~~53,400~~
~~Groundwater Recovery~~	~~53,500~~	~~57,500~~	~~59,500~~
~~Seawater Desalination*~~	~~0~~	~~0~~	~~25,000~~
~~Imported Supplies~~			
~~IID Water Transfer~~	~~110,000~~	~~140,000~~	~~190,000~~
~~Firm Supply from Metropolitan**~~	~~368,100~~	~~386,400~~	~~389,500~~
~~Other Competitive Imported Sources~~	~~71,000~~	~~50,700~~	~~10,000~~
~~Total Projected Supplies~~	~~733,300~~	~~772,000~~	~~813,000~~
~~Total Estimated Demands~~	~~733,300~~	~~772,000~~	~~813,000~~

~~* These numbers reflect what was presented in the 2000 Plan. As stated below, however, seawater delineation is currently anticipated to begin by 2015.~~
~~** Firm supply from Metropolitan is based on the Authority's existing preferential right at Metropolitan; 2002 estimates.~~
~~Source: Authority 2000 & 2002.~~

Table 5.8-1
NORMAL WATER YEAR SUPPLY AND DEMAND ASSESSMENT (AF/Year)

	YEAR				
	2010	2015	2020	2025	2030
Water Authority Supplies					
IID Water Transfer	70,000	100,000	190,000	200,000	200,000
AAC and CC Lining Projects	77,700	77,700	77,700	77,700	77,700
Subtotal	147,700	177,700	267,700	277,700	277,700
Member Agency Supplies					
Surface Water	59,649	59,649	59,649	59,649	59,649
Water Recycling	33,668	40,662	45,548	46,492	47,584
Groundwater	17,175	18,945	19,775	19,775	19,775
Groundwater Recovery	11,400	11,400	11,400	11,400	11,400
Seawater Desalination	0	34,689	36,064	37,754	40,000
Subtotal	121,892	165,345	172,436	175,070	178,408
Metropolitan Water District Supplies	445,858	399,855	311,374	342,870	372,922
TOTAL PROJECTED SUPPLIES	715,450	742,900	771,510	795,640	829,030
TOTAL ESTIMATED DEMANDS with Conservation	715,450	742,900	771,510	795,640	829,030

Source: Authority 2007.

The Updated 2005~~0~~ ~~Plan~~ UWMP also provides the projected supplies and demands for single and multiple dry water years. The Authority used the year 2010 for the single dry water year assessment in order to show the results of projected local and imported water supply development between 201~~0~~0 and 203~~1~~0. Hot, dry weather may increase urban water demands by seven percent and agricultural demands by nine percent. These predictions were used to generate ~~Table 5.8-2, *Dry Water Year Supply and Demand Assessment*~~ Table 5.8-2, *Single Dry Water Year Supply and Demand Assessment*.

~~Surface and groundwater supplies in Table 5.8-2 reflect water availability during the 1987-1992 drought, specifically years 1990, 1991 and 1992. A minor reduction, if any, is anticipated in water supplies from recycled water and groundwater during dry years. If projected local and imported water supplies are developed as expected, the Authority has predicted that supplies will meet regional demands during dry water years.~~

Table 5.8-2
SINGLE DRY WATER YEAR SUPPLY AND
DEMAND ASSESSMENT FIVE YEAR INCREMENTS (AF/Year)

	YEAR				
	2010	2015	2020	2025	2030
Water Authority Supplies					
IID Water Transfer	70,000	100,000	190,000	200,000	200,000
AAC and CC Lining Projects	77,700	77,700	77,700	77,700	77,700
Subtotal	147,700	177,700	267,700	277,700	277,700
Member Agency Supplies					
Surface Water	22,284	22,284	22,284	22,284	22,284
Water Recycling	33,668	40,662	45,548	46,492	47,584
Groundwater	10,838	10,838	10,838	10,838	10,838
Groundwater Recovery	11,400	11,400	11,400	11,400	11,400
Seawater Desalination	0	34,698	36,064	37,754	40,000
Subtotal	78,190	119,882	126,134	128,768	132,106
Metropolitan Water District Supplies	541,760	498,388	431,726	442,142	473,224
TOTAL PROJECTED SUPPLIES	767,650	795,970	825,560	848,610	883,030
TOTAL ESTIMATED DEMANDS with Conservation	767,650	795,970	825,560	848,610	883,030

Source: Authority 2007.

~~Table 5.8-2~~
~~DRY WATER YEAR SUPPLY AND DEMAND ASSESSMENT~~
~~(AF/year)~~

~~Water Sources~~	~~Single Dry Water Year (2010)~~	~~Multiple Dry Years~~		
		~~Year 1 (2001)~~	~~Year 2 (2002)~~	~~Year 3 (2003)~~
~~Local Supplies~~				
~~Surface Water~~	~~38,100~~	~~40,100~~	~~38,100~~	~~53,500~~
~~Water Recycling~~	~~45,100~~	~~14,300~~	~~19,200~~	~~25,200~~
~~Groundwater Recovery~~	~~34,900~~	~~6,900~~	~~10,500~~	~~10,500~~
~~Seawater Desalination~~	~~0~~	~~0~~	~~0~~	~~0~~
~~Imported Supplies~~				
~~HD Water Transfer~~	~~110,000~~	~~0~~	~~20,000~~	~~40,000~~
~~Firm Supply from Metropolitan~~	~~368,100~~	~~303,630~~	~~303,630~~	~~303,630~~
~~Other Competitive Imported Sources~~	~~71,000~~	~~341,870~~	~~328,270~~	~~299,870~~
~~Total Projected Supplies~~	~~767,600~~	~~706,800~~	~~719,700~~	~~732,700~~
~~Total Estimated Demands~~	~~767,600~~	~~706,800~~	~~719,700~~	~~732,700~~

~~Source: Authority 2000~~

Local Water Supply

Since 1990, 5 to 25 percent of the Authority's water has been locally supplied. Local sources include surface and groundwater supplies and recycled (reclaimed) water. The combined capacity of the 24 surface reservoirs within the Authority's service area is approximately 593,915 ~~71,000~~ AF (Authority 2005~~0~~). Surface water provides over half of the Authority's local water supply. Since 1980, annual surface water yields have ranged from ~~33~~24,000 AF to 174,000 AF.

The Authority's Capital Improvement Program includes projects that would increase delivery capacity (to achieve the above demands outlined in the 2005~~0~~ Plan), operational flexibility and reliability of the aqueduct system, and these projects would provide adequate storage to meet emergency needs. Projects include water treatment facilities, additional water storage and regional seawater desalination.

Seawater desalination is one component of the region's local diversification strategies. The 2005 UWMP includes a goal of 56,000 acre-feet of local seawater desalination. ~~The Authority's development of local seawater desalination projects is expected to provide up to 80 million gallons per day of drinking water for the San Diego region by 2015 (Authority 2004).~~ The Carlsbad Seawater Desalination Project is a local desalination project that would be built adjacent to the Encina Power Station in Carlsbad and would utilize existing seawater intake and discharge infrastructure. It is anticipated to produce 50 million gallons of desalinated water per day (56,000 AF per year or nearly 10 percent of the Authority's current supply). The Final EIR for the Encina Desalination Project was

certified by the City of Carlsbad in June 2006; the project received Coastal Commission approval with conditions in November 2007, however, litigation has subsequently been filed. The Authority is also conducting feasibility studies for regional seawater desalination facilities at the San Onofre Nuclear Generation Station and in southern San Diego County.

Imported Water Supply

The Authority imports 75 to 95 percent of its water supply (Authority 2007~~6~~). Much~~All~~ of the Authority's imported water is currently supplied by the Metropolitan Water District of Southern California (Metropolitan), which supplies water to 26 cities and water districts in parts of Los Angeles, Orange, San Diego, Riverside, San Bernardino and Ventura counties and services nearly 18 million people. In FY 2006, Metropolitan sold over 2.1 million AF of water (Metropolitan 2007b).

In FY 2005~~6~~, the Authority purchased approximately ~~557,000 AF of water from Metropolitan, approximately~~ 25 percent of Metropolitan's water supply (~~Metropolitan 2007a and b~~Authority 2005). However, the Authority's existing preferential right under the Metropolitan Water District Act (Metropolitan Act) is limited to ~~303,360 AF of water per year~~15.8 percent. ~~The Authority estimates that their preferential right will increase between 368,100 and 389,500 over the next 13 years.~~ Each member agency that Metropolitan services has a preferential right to a percentage of Metropolitan's available water supply based on a formula established by the State Legislature and set forth in Section 135 of the Metropolitan Act. This percentage is equal to the ratio of each member agency's total accumulated payments to Metropolitan's capital costs and operating expenses compared to the total of all member agencies' payments towards those costs, specifically excepting payments for the purchase of water (Metropolitan 2004). However, because the preferential rights section of the Metropolitan Act has never been invoked, Metropolitan could allocate water to other agencies without regard to historic water use or dependence on Metropolitan. Through a series of court actions the preferential rights formula for Metropolitan was made clear. In its 2005 Regional Urban Water Management Plan (RUWMP) Metropolitan has stated that it is prepared to provide the Water Authority service area with adequate supplies to meet expanding needs in the years ahead. The Water Authority has concluded that Metropolitan is capable of supplying imported water to meet the projected demands by the Water Authority under various hydrologic conditions if the supply targets identified in the 2005 RUWMP are met. ~~For purposes of calculating water supply in the 2002 Master Plan, the Authority used its estimated preferential right at Metropolitan (Authority 2002).~~

One of Metropolitan's primary water sources is the California Aqueduct through the State Water Project. In accordance with its contract with the California Department of Water Resources, Metropolitan has been allocated 2,011,500 AF of water per year; however, this amount has never been delivered to Metropolitan (Metropolitan 2003). Actual deliveries depend on water availability determined by the California Department of Water Resources. The expected water supply from the State Water Project has been estimated in increments of five years through 2025 by Metropolitan and

is shown in Table 5.8-3, *Estimated Water Supplies Available for Metropolitan's Use Under the State Water Project Deliveries.*

Table 5.8-3
ESTIMATED WATER SUPPLIES AVAILABLE FOR METROPOLITAN'S USE UNDER THE STATE WATER PROJECT DELIVERIES
(AF per year)

Year	Average Year	Multiple Dry Years (1990-1992 Hydrology)	Single Dry Year (1977 Hydrology)	Wet Year (1985 Hydrology)
2010	1,549,100	794,700	418,000	1,741,000
2015	1,538,100	794,700	418,000	1,741,000
2020	1,530,700	794,700	418,000	1,741,000
2025	1,523,300	794,700	418,000	1,741,000

Source: Metropolitan 2003

The amount of water that MWD will be able to supply to Southern California in the near future from the State Water Project is unclear given the recent decision in *Natural Resources Defense Council,et.al.v.Kempthorne, et al.* (*NRDC*), currently pending in the United States District Court for the Eastern District of California, Judge Oliver Wanger presiding. A full discussion of the issues surrounding the Wanger decision can be found in the Water Supply Assessment (WSA) prepared by the City of San Diego Water Department in EIR Appendix M.

Metropolitan is allocated a firm 550,000 AF per year through the Colorado River Aqueduct, its other primary water source (Metropolitan 2003). This water supply is expected to remain the same during average, wet, single dry and multiple dry water years. Additional water from the Colorado River Aqueduct may be available to Metropolitan during droughts under the Interim Surplus Guidelines, and that additional water is expected to result in as much as 324,300 AF of water in 2010 under multiple dry year conditions (Metropolitan 2003). The Imperial Irrigation District (IID)-Metropolitan Conservation Program, which has been ongoing since 1990, provides an annual supply of water to Metropolitan. Through the conservation program, Metropolitan provides assistance for conservation programs within IID's service area. Portions of water from the Colorado River Aqueduct conserved by IID through implementation of its conservation measures is diverted to Metropolitan for their use. It is expected that IID would supply approximately 105,130 AF per year of conserved water to Metropolitan (Metropolitan 2003).

Metropolitan also relies on several other water transfers for water sources. In addition, Metropolitan has in-basin storages of water for use during dry years and emergencies. These surface water reservoirs

contain approximately 1.7 million AF (Metropolitan 2003). Metropolitan also has several programs under development that, if implemented, would contribute to its water sources.

Imperial Irrigation District Water Transfer

In 1998, the Authority entered into an agreement with the IID for the transfer of water from the IID to the Authority. The Authority and Metropolitan entered into an Exchange Agreement in November 1998 under which the Authority would transfer the water received from IID to Metropolitan for diversion into the Colorado River Aqueduct, and Metropolitan would deliver an equal amount of water to the Authority. On October 10, 2003, the Quantification Settlement Agreement for the transfer was signed by involved agencies and the first transfer of water occurred in December 2003 (Authority 2005~~3b~~). Under the agreement, the water transfer quantities would increase from 10,000 AF per year (which started in 2003) to 200,000 AF over a period of 19 years. The agreement has an initial term of 45 years and a renewal term of 30 years (if mutually agreed upon by the Authority and IID). The Authority has determined that other water transfers would be necessary to meet anticipated water demand. In 1998, the Authority requested proposals for additional transfers. The Authority will continue to consider transfer and water storage opportunities throughout California as a means to meet its water supply (Authority 2005~~b~~).

City of San Diego Supply

The City of San Diego Water Department treats and delivers more than 200,000 AF per year of water to nearly 1.3 million residents. Its service area is generally located within the south central portion of San Diego County and is approximately 330 square miles. The Water Department potable water system serves the City of San Diego and certain surrounding areas, including both retail and wholesale customers. The proposed project is located within the Water Department service area.

In addition to delivering potable water, the City has a recycled water use program. Its objectives are to optimize the use of local water supplies, lessen the reliance on imported water, and free up capacity in the potable system. Recycled water gives the City a dependable, year-round, locally produced and controlled water resource.

The Water Department currently purchases approximately 75 to 90 percent of its water from the Water Authority, which supplies the water (raw and treated) through two aqueducts consisting of five pipelines. While the Water Department imports a majority of its water, it uses three local supply sources to meet or offset potable demands: local surface water, conservation and recycled water. The availability of sufficient imported and regional water supplies to serve existing and planned uses within the Water Department service area is demonstrated through the preparation of WSAs.

The City has been receiving water from the Authority since 1947 and during the last 20 years the City has purchased between 100,000 and 228,000 AF of water per year. For Fiscal Year 2005, water purchases totaled approximately 211,000 AF, representing 87 percent of the City's total water needs. Depending upon the success of local water supply initiatives this could remain somewhat constant or increase up to a projected maximum of 253,000 AF in 2025 during normal years.

In October 2001, Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221) were enacted and they took effect on January 1, 2002. The intent of SB 610 and SB 221 was to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610, which has been codified in the Water Code beginning at Section 10910, requires the preparation of WSA for projects (defined in the Water Code) within cities and counties that propose to construct 500 or more residential units or that will use an amount of water equivalent to what would be used by 500 residential units. In accordance with the requirements of SB 610, the City of San Diego Water Department has prepared a WSA to assess the availability of water supplies for the proposed project (attached as Appendix M).

One of foundational documents for the preparation of WSAs for projects in the City of San Diego is the City of San Diego Urban Water Management Plan (City UWMP). The Water Department's 2005 City UWMP was adopted by City Council on September 11, 2006, and was filed with the California Department of Water Resources (DWR). The City UWMP and WSA evaluate water supplies that are or will be available during normal, single-dry year, and multiple dry water years during a 20-year projection to meet existing demands, projected demands of the Project, and future water demands served by the Water Department. The WSA provides an assessment of the availability of sufficient water supplies for the proposed project and includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, or agreements relevant to the identified water supply for the project and quantities of water received in prior years pursuant to those entitlements, rights, contracts, and agreements.

Recycled Water Service

The City of San Diego's Water Department has recently established requirements for projects located within the City of San Diego's Recycled Water Service Area per San Diego Municipal Code Section 64.0807. Projects within the service area of the North City Water Reclamation Plant are required to provide recycled water services for irrigation systems~~, cooling towers, urinals, and toilets~~. The North City Water Reclamation Plant (NCWRP) is located approximately 0.5 mile east of the project site on Eastgate Mall. This facility can treat up to 30 million gallons of wastewater (sewage) per day generated by northern communities within the City of San Diego. The NCWRP provides reclaimed water to several northern communities within the cities of San Diego and Poway for irrigation, landscaping and industrial use. Currently, there is more than 79 miles of reclaimed water distribution pipeline connected to the NCWRP.

Current On-site Water Demand

As discussed in Section 5.7, *Public Utilities*, the average annual potable water use for the existing development at UTC is currently 137,281 ~~09,307~~ gallons per day (gpd) based on water meter records from ~~August 2000 through July 2002~~ January 2004 through July 2007 (Dexter Wilson Engineering 2008~~4~~). This includes approximately 96,703 ~~55,409~~ gpd for non-irrigation uses and an estimated 40,578 ~~53,893~~ gpd for irrigation. The UTC site is within the Recycled Water Service Area of the NCWRP, but currently is not serviced by the recycled water system, which was built after the existing development was constructed. Water services are provided to the project site by the City of San Diego Water Department, which is supplied by the Authority.

5.8.2 Impacts

Significance Criteria

The City of San Diego has published significance criteria guidelines for water conservation in their Significance Determination Thresholds (2007a). Project impacts may be significant if the following occurs:

- The project uses excessive amounts of potable water. Excessiveness is determined by the amount of water use (for example, a golf course may use excessive amounts of water)

- The project proposes the use of predominantly non-drought resistant landscaping and excessive water usage for irrigation and other proposes

Issue 1: Would the proposed project result in the use of excessive amounts of water? Would the landscaping be primarily drought tolerant?

The analysis is based on the worst-case Maximum Residential scenario in the Master PDP.

The proposed project is located within a planned urbanizing area of the City of San Diego and would not use excessive amounts of water, because~~: (1)~~ the proposed project will off-set any incremental increase in potable water use at the project site by (1) implementing water efficiency measures as part of the project's LEED-ND sustainability program, (2) using reclaimed water for landscape irrigation, and (3) retrofitting to reclaimed water irrigation one or more existing public facilities that currently use potable water for irrigation. Future demand and these proposed water savings measures are described further below. ~~uses (e.g., retail and multi-family housing and possibly hotel and office) are not high water demand uses and (2) the proposed uses would not consume more than the average amount of water for the uses. In addition, a~~

The proposed project would be built in accordance with the City of San Diego's Land Development Code, which requires the use of drought tolerant plant species in landscaping and low water flow fixtures. Because the proposed project is located in the City's Recycled Water Service Area, the applicant will be required to connect to the reclaimed water services in the area for irrigation systems. The actual amount of water savings would be determined during the building permit phase. In addition, a portion of the retail development involves demolition of 566,000 square feet (sf) of older retail space and redevelopment with newer space with more efficient fixtures (i.e., toilets and faucets). ~~Water efficiency measures proposed under the UTC green program (including the use of more efficient fixtures) are expected to reduce water consumption by the following amounts: 25 percent for retail uses, 65 percent for indoor residential use, 25 percent for offices and 15 percent for hotels (Arup 2007).~~ Planned water conservation measures include the use of reclaimed water and native and drought-tolerant species for landscaping, high-efficiency irrigation systems, low flow fixtures (i.e., toilets and faucets) and waterless urinals. As a LEED-ND pilot project, the proposed project is intending that 90 percent of the buildings (residential structures over 3 stories and all commercial buildings) would use ~~20~~ 30 percent less water than the water use baseline calculated for the buildings (not including irrigation).

As shown in Table 5.7-1 of Section 5.7.2, based on projections from historical water meter data for commercial square footage and City of San Diego accepted water use rates for multi-family residential development, the total on site potable water demand after buildout of the proposed project prior to implementation of the water conservation measures would be 205,537gpd ~~160,000 since reclaimed water would be used for irrigation~~ (Dexter Wilson Engineering 2008~~7~~). This would be an increase of 68,256~~by 105,000~~ gpd of potable water usage over existing levels at UTC. The Maximum Residential land use scenario would produce the worst-case water demand under the Master PDP, in which a total of 269,731~~281,250~~ gpd of potable water would be used for the entire project site ~~since reclaimed water would be utilized for irrigation~~ (see Table 5.7-1). Under both scenarios, reclaimed water would be used for irrigation. The total worst-case potential increase of potable water usage over existing levels at UTC following project buildout under the Maximum Residential land use scenario could be 132,450~~226,250~~ gpd.

According to the WSA issued by the City of San Diego Water Department, the projected increase in potable water demand caused by the proposed project would exceed current and planned potable water use at the UTC site and the proposed project is not accounted for in SANDAG's most recent growth forecast issued in 2004. Therefore, any additional potable water use over and above the current water usage at the UTC site has not been planned for in the 2005 City UWMP. As a result, the City of San Diego will condition the project to require that it not cause an increase in the City of San Diego's planned water demand above existing water usage levels at the site (detailed in the analysis by Dexter Wilson Engineering 2008 contained in EIR Appendix M). The project applicant will implement this condition by 1) off-setting any projected increases in potable water use on-site by

retrofitting with reclaimed water one or more existing public off-site facilities that currently use potable water for irrigation, 2) using reclaimed water for irrigation, 3) installing water efficiency measures as part of the project's LEED-ND sustainability program, and 4) monitoring water use for three years following project completion. The retrofit projects would reduce demand for potable water at a level that is commensurate with the increase in demand on site. This would result in a net zero increase in potable water demand to the City. A number of potential off-set projects are listed in the Water Department's 2005 Recycled Water Master Plan Update and the January 9, 2008 Memorandum from the Water Department to Mayor Sanders entitled *Water Reuse Study – Request for Action*. Potable water service would continue to be provided by the City of San Diego Water Department via existing water facilities in the project area. ~~No permits are necessary to provide water to the project site.~~

~~The proposed project would be built in accordance with the City of San Diego's Land Development Code, which requires the use of drought tolerant plant species in landscaping and low water flow fixtures. Because the proposed project is located in the City's Recycled Water Service Area, the applicant would connect to the reclaimed water services in the area for irrigation systems. Therefore, project and overall site demands on potable water supply would be a minimum of 54,000 gpd less than current demands. The actual amount of water savings would be determined during the building permit phase.~~

As noted above, the Authority has indicated there are sufficient water supplies to serve the future potable water needs of San Diego County. In addition, ~~a~~ the ~~Water Supply Assessment~~ WSA ~~is currently being~~ prepared by the City of San Diego Water Department for the proposed project pursuant to SB ~~221~~/610 (City of San Diego 2008) concludes that the existing level of water use at the UTC site is included in the water demand forecasts within the 2005 City UWMP, and other water resources planning documents of the Water Department, the Water Authority, and Metropolitan. The WSA demonstrates that, as conditioned, there will be sufficient water supplies over a 20-year planning horizon to meet the projected demand of the project and the existing and other planned development projects within the Water Department service area. The WSA is attached as EIR Appendix M to this report. ~~The first phase of retail and residential construction is projected to be completed by 2011, while the second phase of residential construction has no defined timeline. The 2000 Plan and 2002 Master Plan provide water supply and demand assessments through the duration of initial construction.~~

Significance of Impacts

Project demands on potable water supply would not be excessive, as the proposed uses would not require excessive amounts of water, would incorporate water efficiency measures as part of the project's LEED-ND sustainability program, including reclaimed water for irrigation, and would offset any increase in potable demand by retrofitting other off-site public facilities currently using potable

water for irrigation with connections to the City's recycled water system. The project would be required to comply with the City of San Diego Land Development Code regarding the use of water efficient fixtures ~~and c~~, would be required to connect to the Recycled Water Service Area and would be required to retrofit one or more existing facilities to reclaimed water irrigation, all of which would reduce the expanded center's projected demand on potable water supply. In addition, the project would implement the UTC green program under the LEED certification process that would include extensive water conservation measures. Furthermore, the Authority has indicated that there are sufficient water supplies to serve the future potable water needs of San Diego County given regional population growth, including during multi-year drought conditions and the City of San Diego has issued a WSA which finds that there is sufficient water to serve the project. Thus, project impacts to water supply ~~are not expected to~~would not be significant.

Mitigation Measures, Monitoring and Reporting Program

No significant impacts to water supply have been identified; therefore, no mitigation measures are required.

5.9 CONSTRUCTION EFFECTS

Construction of the proposed project would likely occur over an estimated 3- to 5-year period (assuming both phases are consecutive) and has the potential to disrupt existing circulation patterns and affect local residents and businesses. The following section addresses nuisance-level impacts expected during project construction activities, including effects on traffic, pedestrian circulation, parking, ambient noise levels, public viewing areas and dust levels.

5.9.1 Existing Conditions

The project site is developed with the existing regional shopping center, which features department stores, specialty retail shops, an automotive service shop, limited entertainment venues (e.g., ice rink), community meeting rooms, bus transit center, several surface parking lots, two parking structures and landscaped medians (Figure 2-4 in Section 2.0, *Environmental Setting*). The property is flanked by several public roads, including La Jolla Village Drive, Genesee Avenue, Nobel Drive and Towne Centre Drive. Vehicular access to the site occurs from these public roads via five separate driveways. Pedestrian access is available from sidewalks within the public rights-of-way, a walkway through an adjacent open space and two above-grade pedestrian bridges over La Jolla Village Drive and Genesee Avenue, respectively.

Traffic Conditions

As described in detail in Section 5.3, *Transportation/Circulation*, street segments and intersections surrounding the UTC property currently experience degraded levels of service (LOS) and significant delays during the morning peak hour (7 a.m. to 9 a.m.) and evening peak hour (4 p.m. to 6 p.m.) corresponding with the commute patterns in the project area. Excessive delays are particularly experienced at intersections adjacent to UTC along La Jolla Village Drive and Genesee Avenue and at the freeway on-ramps (i.e., Interstates 5 and 805) serving the community. Some locations currently experience LOS which are considered unacceptable to the City.

Noise Environment

Noise can be defined as any unwanted sound. Sound levels are usually measured and expressed in units called decibels (dB). Since the human ear is not equally sensitive to all sound frequencies, noise levels are factored more toward human sensitivity using the "A" weighting scale, written as dBA. To account for the variability in sound levels, a mathematical average is used to describe the noise exposure. This time-averaged sound level is defined as the noise equivalent level (L_{eq}). In general terms, L_{eq} is the average noise level during the specified time period. L_{eq} is the unit of measure used to describe construction noise, as discussed below.

Noise sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise. They typically include residential dwellings, dormitories, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities (i.e., classrooms) and libraries. Noise sensitive receptors in the project vicinity include single-family residential uses along Towne Center Drive to the south, multi-family residential units to the south along Lombard Place and Nobel Drive and high-density residential structures to the west. In addition, a community day care center is located on site at the southeastern portion of the center.

City of San Diego Noise Ordinance

The City's noise ordinance regulates noise produced by construction activities. Construction activities are prohibited between the hours of 7 p.m. and 7 a.m., and on Sundays and legal holidays, except in case of emergency. Construction noise must not exceed an average sound level of 75 dBA L_{eq} at the property line of any property zoned for residential use during the 12-hour period from 7 a.m. to 7 p.m. (SDMC §59.5.0404).

Public Viewing

The project site is located in the center of the University Community Planning area. This community is primarily comprised of a mix of commercial, office and residential land uses. As discussed in Section 5.2, *Aesthetics/Visual Quality*, public views into the interior of the project site are available from La Jolla Village Drive, Genesee Avenue and Towne Center Drive in the project vicinity. Although Nobel Drive is located on the southern edge of the mall, views from that road are limited to the outer slopes along the southern edge of the UTC property due to the elevated position of the shopping center relative to the road and mature landscaping on the slope that intervenes. The roadways in the project area are not classified as scenic routes in the *University Community Plan*, but two are considered "community unifying roads" in the Urban Design Element, as described in Section 5.2, *Aesthetics/Visual Quality,* under Applicable Community Plans and Policies. In addition, Towne Centre Drive and Nobel Drive are part of the Urban Node Pedestrian Network described in the Urban Design Element of the Community Plan, as summarized in Section 5.1, *Land Use*. The project site is not visible from any public parks or scenic vistas in the community.

5.9.2 Impacts

Significance Criteria

The following is a list of the City of San Diego significance criteria that would be applicable during project construction.